

NORTHAMPTON
M A S S A C H U S E T T S
MASTER PLAN

1963

NORTHAMPTON PLANNING BOARD



NORTHAMPTON

MASSACHUSETTS

THE MASTER PLAN

August 1963

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FOREWARD

We take pleasure in submitting herewith the Master Plan for the City of Northampton.

Already the historical development of our Community gives evidence of the strength of our proposed plan. Neighborhoods, as they have grown up, are separated by open spaces. Some of these open spaces have been the gifts of altruistic citizens, such as Look Park, Child Park, and Maine's Field and some of the open spaces are due to the contour of the land and rivers, the gifts of nature. We have indicated that by taking advantage of other natural conditions, such as the Mill River, the Ox-Bow and the Connecticut, Northampton can become one of those favored cities with natural open spaces and green belts so sought for by other communities.

We believe community pride and loyalty could become city wide with the further development of our civic center, using the existing groupings of public buildings, the Library, the City Hall and areas in between, with proper parking facilities in the immediate vicinity.

We see the future of Northampton as the trading center of a growing region as our City and the neighboring towns grow in population and valley lands are occupied by industrial plants requiring large acreage. We have pointed out ways by which we believe the central business district may be expanded so that this regional center will become a reality.

Located as we are at the intersection of Routes 5, 9, 10 and 1-91 we see our community growing with commuters who choose to live here because of our educational advantages, our medical facilities, our shopping center, our parks, our scenic panoramas, our proximity to mountain and sea, our cultural atmosphere, our unhurried way of life and our available residential land. We foresee ourselves as a continuing residential community becoming especially attractive when modern highways provide exceptionally fine transportation routes. Few cities have so much to offer for family living as does Northampton.

To accomplish some of our goals will require the expenditure of time, of money and especially a willingness to support the goals of planning, so that eventually the overall scheme may be realized. We think this can best be done by frequent conferences between the Planning Board and other civic groups and committees. We suggest that the Mayor call such conferences at regular intervals, so that the principles we have pointed out may actually be guide lines in community growth. Only by such constant attention can the expenditure of money and time which has gone into this planning be reclaimed for the community.

NORTHAMPTON PLANNING
BOARD

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Available for Inspection at the Planning Board Office

- 1 Area of Influence
- 2 Topography and Drainage
- 3 Conditions Affecting Development
- 4 Existing Land Use
- 5 Analysis Districts and Future Residential Neighborhoods
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CHAPTER I.

NORTHAMPTON'S MASTER PLAN

Introduction

Northampton's Master Plan is intended to be a guide to help in the decisions which the community must face in making and remaking its physical shape. These are decisions which come up frequently such as zoning matters, choice of a new school site, layout of a new street or highway, extension of a sewer or water main and many others. The Master Plan contains the recommendations of the Planning Board and, through that body, the thinking of the community about its future development. Since circumstances are constantly changing and new factors keep coming into the picture, it is necessary to keep any plan up to date with frequent re-study.

First it is necessary to take a broad look at the community and to see what we are planning for. What are the functions which Northampton fills in the wider regional area? What size of community can we foresee? What kind of residential neighborhoods does it need?

Northampton is fortunate in having ample land in which to grow, probably much more than will be intensively used in the foreseeable future. It is fortunate in having many parks and other open spaces which divide the City into numerous residential neighborhoods. Instead of an unbroken expanse of urban spread, Northampton is actually a group of human-scale communities, each adjacent or near to open space. The amenities to good living which this character gives should certainly be retained. Northampton's future residential development should preserve the quality of the existing neighborhood areas and should insure future areas with equally desirable character.

The following pages show Northampton's relationship to the surrounding "area of influence" and highlight the importance of the retail trade and service center as one of the City's chief functions. They describe the trends of population and indicate projections of population into the future with the conclusion that Northampton's present planning should be designed to accommodate an ultimate population of 50,000, which is likely to be reached around 1990.

In view of the importance of the central business functions in the economic life of the City, the next chapter will deal with the downtown area and the program for urban renewal. The following chapter will take up the subject of Northampton's natural land resources, their best use and conservation.

A succeeding chapter will study the best development of residential neighborhoods and the relation between residential growth and provision for sewer and water services. This will be followed by discussion of proposals for industrial and commercial development, planning for traffic circulation and then for community facilities such as schools, parks, playgrounds and the like.

Metropolitan Northampton

Northampton is in reality a small metropolitan center. It owes its existence to a combination of industry, business and institutions. As a center of business and professional occupations, it serves an area outside its own borders, including a number of neighboring communities. Because of its nearness to larger cities, its trade area, or "area of influence" is somewhat limited in extent.

Development of communities today is closely related to the growth of a whole region. Northampton is located at the northerly end of that part of the Connecticut valley area which has had an intense urban development. It is the northernmost community of its size in the valley.

To the south lie the large and growing metropolitan regions centered around Springfield and Hartford and these in turn are parts of what is rapidly becoming a single complex of urban communities covering the entire eastern seaboard from Maine to Virginia. While in former generations the larger cities were separate entities, with open country between, today the spread of suburban development, or decentralization has reached from one large center to touch the next. Rural land is being eaten up by development of "interurbia".

By contrast, the land to the north has changed very little in a number of years. It is essentially rural and agricultural, with small industrial clusters. In the 17th and 18th Centuries Northampton and its neighbors like Deerfield were outposts of civilization and settlement. So today Northampton is an outpost of urban development. How it will grow and prosper will be determined largely by the growth and development of the regional "area of influence", as well as by the activities of the community in modernizing its own physical aspects and facilities.

For these reasons planning must be based on estimates of future trends within the "area of influence". To make any such estimates, we must first find out what communities are so closely related to Northampton as to constitute its area. What towns consider Northampton as their primary center? Two relationships between communities are immediately apparent, namely, retail trade and commutation to work.

Northampton's "Area of Influence"

Where do people come from who shop in Northampton? One of the best indications of this is the circulation of comparable local newspapers, since they carry advertising of the retail outlets which cater to the communities they reach. Northampton's local paper is one of four daily evening newspapers published in the Massachusetts part of the Connecticut valley, the others being located in Springfield, Holyoke and Greenfield.

Northampton's Hampshire Gazette leads the others in most of Hampshire County. In Huntington, Belchertown and Ware the Springfield Daily News predominates and in South Hadley and Granby the Holyoke paper leads. From Whately northward it is the Greenfield paper which has the largest circulation.

Newspaper circulation in each community is reported by the publishers to the Audit Bureau of Circulation. A study of these figures shows that in most of the towns one or another of the competing newspapers is very clearly in the lead, showing that a particular locality is very clearly oriented to the leading paper's parent city. For example, in Easthampton, the Hampshire Gazette distributes approximately ten times as many copies as either of its rivals from Springfield or Holyoke.

Another indicator of inter-community relationships is the daily travel of residents from one place to another for work. The Massachusetts Department of Commerce made a recent study of the commuting pattern of employees of manufacturing concerns. About 70 percent of Northampton residents who are employed in manufacturing work within the City. There is a considerable interchange of workers between Northampton and Easthampton. At the time of the survey, 233 Northampton residents went to work in Easthampton plants and 154 from Easthampton came to Northampton to work. Substantial numbers also come to work in the City from Hadley, Hatfield, Williamsburg and Chesterfield.

From these observations the "Area of Influence" of Northampton should be considered to include the "Hamptons", Williamsburg, Hatfield and Hadley which are adjacent to it, as well as the hill towns of Cummington, Chesterfield, Goshen and Plainfield. Whately, although in Franklin County and in part oriented towards Greenfield, is close enough geographically to come within Northampton's sphere of trade and service. Across the River, in Amherst, the Northampton newspaper has a circulation of nearly four times that of any other. Traffic routes and geographical position also tend to confirm Amherst and its neighbor Pelham, as belonging to the Northampton "area of influence".

Northampton's Area of Influence

Northampton	Amherst
Easthampton	Pelham
Southampton	Cummington
Westhampton	Chesterfield
Williamsburg	Goshen
Hatfield	Plainfield
Hadley	Whately

The Area's Future

Northampton's own area overlaps the larger Springfield metropolitan region and is actually a part of it. The U.S. Census uses for convenience the term "Standard Metropolitan Statistical Area" or SMSA to denote the region surrounding one or more central cities of at least 50,000 residents. In this case, it is known as the "Springfield - Chicopee - Holyoke SMSA" and includes Northampton, Easthampton and Hadley. Northampton's own population growth will be very much influenced by that of the Springfield SMSA.

In recent decades, Massachusetts has grown at a slower rate than the nation as a whole. From 1950 to 1960, the rate of growth of the United States was 18.5 percent, but for Massachusetts it was only 9.8 percent. From 1940 to 1950 the corresponding rates were 14.5 percent for the nation and 8.7 percent for the State.

By contrast, the Springfield SMSA has grown more rapidly than the State and than the metropolitan areas of Boston and Worcester, 15.7 percent from 1950 to 1960, compared with 9.3 percent for the Worcester region. Immediately to the south, the Hartford SMSA grew by 29 percent. The Springfield area, and consequently Northampton, is more likely to be influenced by growth in the Hartford area and by development extending up the Connecticut valley than by that of the rest of Massachusetts.

The State's population is growing at a rate which would give it about 5,600,000 in 1970 and 6,200,000 in 1980. If the Springfield SMSA continues to grow slightly faster than the State as a whole, its proportion of the total State population is likely to grow from 9.35 percent in 1960 to around 9.8 percent in 1970 and 10.3 percent in 1980. This would mean a population of 550,000 in 1970 and 640,000 in 1980, contrasted with 478,600 in 1960.

The region previously described as Northampton's "area of influence" increased in population from 62,500 in 1950 to 70,080 in 1960, or 10.8 percent. Northampton itself added only about 1,000 residents, a gain of 3.4 percent, in this decade. However, the group of towns nearest to Northampton, namely the other "Hamptons", Williamsburg, Hatfield and Hadley, gained over 3,300 residents, or 17 percent. Half of this new population occurred in Easthampton.

Study of trends of growth in places like Northampton or Amherst is complicated by the fact that prior to 1950 the U.S. Census enumerated the students at colleges and the inmates or patients at institutions as belonging to their own home communities. In the 1950 and subsequent censuses, these persons have been counted as residents of the place where the institution is located. This accounts for the considerable climb in population of both Amherst and Northampton from 1940 to 1950. Northampton's own local population has had only a minor growth since 1930.

Northampton's Potential Growth

If one is to project ahead the recent population trend of Northampton, with a growth of about 1,000 a decade, the City would still have less than 35,00 people

in the year 2000. But other influencing factors make this an unrealistic approach. So far as Northampton's growth as the regional center, it is much more important to look at the potential growth of the surrounding area. But if Northampton takes necessary steps to improve its central business area and to maintain its regional leadership in business, growth of the area towns will be reflected in increased economic activity and consequent attraction to new residents.

The major factor in the growth of Northampton and its environs in the next few decades is the spread of urbanization creeping up the Connecticut valley. Better transportation, and in particular the Interstate Route 91 through Northampton, will accelerate this movement. The latter highway, extending from the seacoast to Canada and connecting with other major expressways, will shorten travel time and thus bring the Northampton area closer to the larger centers.

Northampton as a community has several factors in its favor which can help the City's own growth, rather than that of its neighbors. It has a considerable amount of land available and suitable for development at favorable locations. One very important factor is the availability within Northampton of municipal utilities, water and sewers, over widespread areas. This is not the case in some of the outlying towns. Availability of these utilities will be of special importance in the location of new industries.

If the "area of influence" continues its recent growth trends, with some acceleration it is likely to increase by about 14 percent in the current decade and perhaps 16 percent from 1970 to 1980. This would give the area approximately 80,000 residents in 1970 and 93,000 in 1980. By 1990 it is likely to have a population of around 100,000 to 110,000.

Since the towns outside Northampton grew more rapidly than the City in the last ten year period, the City's percentage of area population fell from 47 percent in 1950 to 43 percent in 1960. If this trend continues, Northampton may well have no more than 40 percent of the area's residents in 1970 and 1980. If, however, development within the City is accelerated, it may have something like 45 percent of the area population, or 35,000 in 1970 and 42,000 by 1980. If the city has 50 percent of the area population by 1980, it will then reach a population of 47,000.

In making long range plans, it is essential to plan for the largest population to be expected, rather than the smallest. Plans are concerned now primarily with insuring that space will be available for all the types of development and facilities in the community when the need is there. Plans for use of land for housing must bear a relation to the expected number of families. This will also guide the plans for school, recreation and similar facilities, for which sites must be acquired in advance of surrounding development. From the figures just presented, it is apparent that Northampton should plan for an eventual population of 50,000. This figure is likely to be reached at some time around 1990 or perhaps 2000. By 1980, the City is likely to have at least 40,000 and possibly as many as 47,000. In 1970, the population will probably reach a minimum of 33,000 and may total 37,000. A "target" population for present planning may be established as :

1970	35,000
1980	42,000
1990	50,000

Residence of Retail Customers

A sample survey secured by the Chamber of Commerce gives a picture of where Northampton's retail customers come from. While it is impossible, without questioning every person who enters any Northampton store, to obtain an exact and detailed answer to this question, the present sample was obtained from records of charge account customers. This reflects the place of residence of the steadiest and most reliable type of customer especially in the lines represented by apparel, specialties, house furnishings and general merchandise, which are the mainstay of the central business district.

Table 1 lists the towns of the Area of Influence and their 1960 population. It shows the percentage of Area population in each town and the percentage of retail customers of Northampton's central stores which were attributable to the residents of each locality in the survey described above. It also gives the approximate distance of each town from the Northampton central business district.

Table 1

Area of Influence and Trade Area

	<u>Population 1960</u>	<u>Percent of Area Pop.</u>	<u>Northampton's Retail customers by place of Residence</u>	<u>Highway Distance Center to Center</u>
Northampton	30,058	42.9%	44.6%	-
Amherst	13,718	19.6	12.0	7 miles
Easthampton	12,326	17.6	8.0	4
Williamsburg	2,136	3.1	5.7	7
Hadley	3,099	4.4	5.0	3
Hatfield	2,350	3.4	4.0	3
Southampton	2,192	3.1	1.4	8
Chesterfield	556	0.8	1.0	11
Cummington	550	0.8	0.8	18
Westhampton	523	0.8	0.8	7
Whately	1,037	1.5	0.7	8
Goshen	385	0.6	0.4	12
Plainfield	237	0.3	0.2	20
Pelham	805	1.1	0.4	12
	<hr/>	<hr/>	<hr/>	
	70,082	100.0	85%	
Transient and out of area			15.0	
			<hr/>	
			100.0%	

Source: Survey, courtesy of Chamber of Commerce.

Area Covered by Local Newspaper

Table 2 lists the communities in which the Daily Hampshire Gazette of Northampton leads in circulation the other comparable evening papers. It may be noted that in all of these communities there is a sharp difference between the circulation of the Northampton paper and its nearest competitor. This is also true of the communities where the other papers lead and tends to delineate sharply the trade areas of each of the principal cities.

Table 2

Comparison of Evening Newspaper Circulation in Area of Influence

	<u>Daily Hampshire Gazette Northampton</u>	<u>Daily News Springfield</u>	<u>Transcript Telegram Holyoke</u>	<u>Recorder Gazette Greenfield</u>
Northampton	6,989	831	100	-
Easthampton	2,941	298	293	-
Amherst	1,381	-	33	80
Hadley	483	-	-	-
Hatfield	483	89	-	-
Williamsburg	330	-	-	-
Southampton	143	-	95	-
Cummington	75	-	-	-
Whately	-	-	-	87

Source: Audit Bureau of Circulation.

Circulation less than 25 copies not given.

Commutation of Employees

Two sources of data have been used to illustrate the commuting pattern of residents of Northampton. The Planning Division of the Massachusetts Department of Commerce made a survey in 1960 of the places of residence of employees in the principal manufacturing concerns in the valley. Figures from this study are given in table 3.

Table 3

Commutation of Employees in Manufacturing

<u>Place of Residence</u>	<u>Place of Employment</u>						
	Northampton	Easthampton	Holyoke	Chicopee	Springfield	Hatfield	Westfield
Northampton	1402	233	88	68	55	27	22
Easthampton	154	1585	218	64	47	2	266
Hadley	65	12	2	-	40	8	-
Hatfield	62	12	4	-	-	54	-
Chesterfield	48	37	2	-	-	-	-
Holyoke	36	64	-	-	-	1	-
Williamsburg	25	9	-	-	-	-	-
Springfield	23	31	-	-	-	-	-
Southampton	15	32	14	3	20	-	15
Amherst	15	33	13	1	28	6	-
Other							
Total Employed	2038	2429	5236	6848	12166	122	2913
Source : Study by Massachusetts Department of Commerce, 1960 Figures give numbers of employees covered by the survey -							
Total covered employment in manufacturing	2667	3214	11954	13691	24401	683	3677
Percent re-presented by this sample	76	76	47	50	50	16	80

A sample study of the places of employment of Northampton Residents in all types of work was made from information given in the city directory. From this study, we see that approximately 77 percent of Northampton residents in all lines of work are employed within the City. Approximately 74 percent of Northampton residents who work in manufacturing are employed within the city. The largest group to travel outside to work are those employed in manufacturing in Easthampton. It is interesting to note from the 1960 study that more Northampton people went to Easthampton to work in manufacturing plants than the number of Easthampton residents who come to Northampton.

Table 4

Place of Work of Northampton Residents

	All Types of Work *	Employees in ** Manufacturing
Northampton	76.7%	73.6%
Springfield	5.8	2.9
Easthampton	5.3	12.2
Holyoke	2.9	4.6
Amherst	2.6	-
Williamsburg	0.7	-
Hadley	0.5	-
Chicopee	0.5	3.6
Westfield	0.5	1.1
Hatfield	0.2	1.4
Other	4.3	0.6
	<hr/> 100.0%	<hr/> 100.0%
Total Employed Persons	10,897 *	1905 **

* Sample study from information in City Directory.
Total employed persons from 1960 Census.

** From Department of Commerce Survey, 1960, see Table 3.
1960 Census lists 2,565 Northampton residents as being employed in manufacturing.

Population Trends and Projections in Area of Influence

The trends of population in Northampton and the towns of the Area of Influence from 1940 to 1960 are shown by Table 5. In the 1950-1960 decade, the greatest numerical increase took place in Amherst, partly because of increased enrollment at the University of Massachusetts. The Area as a whole increased by 7573 residents, or 10.8 percent. Approximately 45 percent of this numerical increase took place in the immediate suburbs of Northampton, which are listed as a group in Table 5.

Table 5

Population Trends in Area of Influence

	1940	1950	Increase 1940-50	1960	Increase 1950-60
Northampton	27,794	29,063	17.2% *	30,058	3.4%
Easthampton	10,316	10,694	3.7	12,326	15.3
Southampton	950	1,387	46.0	2,192	58.0
Westhampton	403	452	12.2	583	29.0
Williamsburg	1,684	2,056	22.1	2,186	6.3
Hatfield	2,216	2,179	- 1.7	2,350	7.8
Hadley	2,576	2,639	2.4	3,099	17.4
Amherst	6,410	10,856	69.4 *	13,718	26.4
Cummington	608	620	2.0	550	- 11.3
Chesterfield	442	496	12.2	556	12.1
Goshen	237	321	35.5	385	19.9
Plainfield	264	228	- 13.6	237	3.9
Pelham	568	579	1.9	805	39.0
Whately	979	939	- 4.1	1,037	10.4
Total	52,447	62,509	19.2%	70,082	10.8%
Northampton as percent of Area	47.5%	47.0%		42.9%	
Combined Population of Northampton Suburbs (Easthampton, Southampton, West- hampton, Williamsburg, Hatfield, Hadley)	18,145	19,407	7.0%	22,736	17.2%
Same as percent of Area	34.6%	31.2%		32.4%	

Source:- U. S. Census

* See comments on Page-4- on inclusion of college and institutional population in 1950 and 1960 census of Northampton and Amherst, but not in 1940, causing abnormal increase, 1940 to 1950.

Migration

Another important factor in population trends is the relation of natural increase to actual increase. Natural increase is the excess of births over deaths within the community. If the natural increase is greater than the actual population increase, it means that there was an out-migration of population. In Northampton between 1950 and 1960 there were 2,361 more births than deaths, but the census showed a population increase of only 995 persons. Therefore there was an out-migration of 1,366 persons, over and above any number who may have moved in. Table 6 gives a picture of the in-and migration of the communities in the Area of Influence. This shows that there was a net in-migration into the Area equivalent to 1.3 percent of its 1950 population.

The greatest numerical in-migration took place in Amherst, again due chiefly to increased enrollment at the University of Massachusetts. The next largest numerical in-migration and the greatest in percentage took place in Southampton, which is the most rapidly growing town in the area in proportion to its size. Easthampton also achieved a net in-migration, as did some of the smaller towns.

The state as a whole lost a net of 86,829 residents by out-migration between 1950 and 1960, or 1.85 percent of its 1950 population. Hampshire County had a net in-migration equivalent to 5.85 percent of its 1950 population, due largely to great increases in Granby and South Hadley, as well as in Amherst and Southampton. In Hampden County the net in-migration was 2.38 percent of 1950 population.

Table 6

In-and Out-Migration in Area of Influence

	<u>Increase</u>	<u>1950-1960 Excess Births over Deaths</u>	<u>Net Migration</u>	<u>Percent of 1950 Population</u>
Northampton	995	2,361	-1,366	- 4.7%
Easthampton	1,632	1,468	+ 1,468	+ 1.5
Southampton	805	217	+ 588	+ 42.4
Westhampton	131	90	+ 41	+ 9.1
Williamsburg	130	216	- 86	- 4.2
Hatfield	171	213	- 42	- 1.9
Hadley	460	405	+ 55	+ 2.1
Amherst	2,862	1,403	+ 1,459	+ 13.4
Cummington	- 70	67	- 137	- 22.1
Chesterfield	60	93	- 33	- 6.7
Goshen	64	35	+ 29	+ 9.0
Plainfield	9	25	- 16	- 7.0
Pelham	226	97	+ 129	+ 22.3
Whately	98	101	- 3	- 0.3
Totals	7,573	6,791	782	+ 1.3

Population Projections

Table 7 gives a basis for population projections mentioned on pages 4 and 5. The states current rate of growth would give it 5,600,000 inhabitants by 1970. Because of family foundation in the late 1960's, its rate is likely to increase. Therefore for the decade from 1970 to 1980, the rate of increase projected here has been increased to 10.7 percent. Table 7 shows a projected growth for the Area of Influence, based on a somewhat accelerated rate, but on the assumption that its population will continue to bear approximately the same ratio to that of the Springfield SMSA as it does at present.

Table 7 also gives two projections for Northampton's own population, the low estimate based on a declining percentage of Area population and the high estimate based on a slightly rising percentage. The Table also gives a picture of what is likely to happen in the immediate suburbs and in Amherst.

Table 7

	<u>Population Projections</u>					
	1960	Increase 1950-60	1970	Increase 1960-70	1980	Increase 1970-80
State of Mass	5,115,295	9.8%	5,600,000	9.8%	6,200,000	10.7%
Springfield SMSA	478,592	15.7%	550,000	16.8%	640,000	16.5%
as percent of state	9.35%		9.8%		10.3%	
Northampton Area of Influence	70,082	10.8%	80,000	14%	93,000	16%
Area as percent of Springfield SMSA	14.6%		14.6%		14.6%	
Northampton as percent of Area (low estimate)	42.9% 30,058	3.4%	40% 32,000	6.6%	40% 37,000	15.6%
Same, (high estimate)	42.9% 30,058	3.4%	44% 35,000	16.4%	45% 42,000	20.0%
Combined pop- ulation of Northampton Suburbs (see Table 5)	22,736	17.2%	27,000	18%	32,000	20%
Amherst	13,718	26.4%	17,000	25%	20,000	20%

Factors Influencing Growth in Area of Influence

The major factor influencing growth in Northampton's Area of Influence is the rapid growth of similar areas of the Connecticut valley to the south. The percentage growth by decades of the nation and various applicable units is shown by Table 8. The population of the nation is growing rapidly. Estimates of the Bureau of the Census indicate a growth rate of about 20 percent in each of the next two decades to 1980. The population of the Hartford region has been estimated by the Connecticut Development Commission to grow at a rate of from 20 to 25 percent a decade.

Each of the regional units of area listed in Table 8 has grown at a faster rate in each succeeding decade of the last three. In the case of central cities, the maximum growth rate appears to have been reached. Hartford dropped in population by 8.6 percent from 1950 to 1960 and Springfield gained at a lesser rate than in the previous decade. The regional growth is a decentralizing one, spreading out from the central cities. Two of the smaller communities, somewhat comparable in size to Northampton, are Westfield and West Springfield. These have shown an accelerating rate of growth. Only Holyoke in this vicinity has declined in population.

Table 8

Comparison of Rates of Population Growth

	<u>1930-40</u>	<u>1940-50</u>	<u>1950-60</u>
U.S.	7.3%	14.5%	18.5%
State of Connecticut	6.4%	17.4%	26.3%
Hartford SMSA	8.2%	20.6%	29.2%
Same, Area outside Central City	15.8%	33.1%	58.4%
Springfield SMSA	2.8%	11.2%	15.7%
Chicopee, Holyoke			
Same, Area outside Central Cities	13.5%	15.8%	28.0%
Places south of Northampton			
Westfield	-5.0%	11.5%	25.5%
West Springfield	2.8%	19.3%	22.0%
Springfield	-0.2%	8.6%	7.4%
Holyoke	-4.9%	1.7%	- 3.6%

The Connecticut valley area narrows as it approaches Northampton from the south. Development which extends over a wide area at the state line, from East Longmeadow to Westfield, is constricted by topography in the Northampton area.

Development will be much influenced by highway improvements, especially the interstate route. Interchanges will become centers of growth. Northampton is at the meeting point of two routes from the south, I-91 and Route 10.

Considerable land suitable for industrial and other urban development exists both in Northampton and in the Area of Influence. Easthampton and Southampton to the south and Hatfield and Whately to the north appear especially to be in the line of future industrial development.

ECONOMIC BASE

Employment in the Area of Influence

A picture of employment available to residents of the Area of Influence may be obtained from a study of the reports of the state Division of Employment Security, referring to employment covered by unemployment insurance. This includes employees in industry, commerce, service and professional establishments, with minor exceptions. Table 9 shows the covered employment in the principal employment centers in and near the Area of Influence. The relation of employment as a percentage of population in each community indicates places which are predominantly employment centers.

Table 9

Covered Employment, 1960 Employment Centers of the Region

	<u>Employed in Manufacturing</u>	<u>Manufacturing as percent of Total</u>	<u>Employed Non- Manufacturing</u>	<u>Total</u>	<u>Covered Employment as percent of Pop.</u>
Springfield	24,401	39.4%	37,579	61,980	35.5
Holyoke	11,954	61.0	7,651	19,605	37.2
Chicopee	13,691	78.9	3,658	17,349	28.2
West Springfield	3,786	42.2	5,176	8,962	36.0
Northampton	2,982	45.2	3,609	6,591	21.9
Westfield	3,677	57.7	2,694	6,371	24.2
Greenfield	2,599	47.1	3,531	5,518	31.2
Easthampton	2,806	79.5	725	3,531	28.6
Hatfield	683	75.1	227	910	38.7
Hadley	215	50.8	208	423	13.6
Amherst	81	8.6	862	943	6.9

Source: Division of Employment Security.

From Table 4 we saw that about three-quarters of all Northampton residents who are gainfully employed work in the City. Springfield is of course the major employment center of the region. Approximately 6 percent of Northampton workers are employed there. Easthampton provides employment for more than 5 percent of Northampton workers, the majority of them in manufacturing.

The figures of Table 9 do not reflect the large number of persons employed by governmental agencies and other institutions, especially in Northampton, Amherst and Chicopee. In Amherst there is likely to be increased employment in institutions due to growth at the University of Massachusetts. This will also bring about an increase in employment in retail and service in the Town.

Industrial employment may be expected to increase in Westfield, Easthampton, Northampton, Hatfield and possibly in Whately, due to the availability of sites and to better transportation facilities resulting from the interstate highway.

Retail and service employment will increase proportionately to population of the whole Area of Influence. If Northampton maintains its leadership as the regional center, a larger share of the increase in this type of employment will be in the City. On the other hand, it is unlikely that there will be any great increase in institutional activity in Northampton and consequently little increase, if any, in that type of employment.

Potential Retail Trade

Retail trade in the Area of Influence will be approximately proportional to population. The latest available census figures (1958) show that Northampton does about 44 percent of the retail business of Hampshire County. For trade comparisons, the County is very similar to the Area of Influence. Tables 10 and 11 give statistics on retail trade and selected services. In the latter category, Northampton furnishes over 47 percent of the services of the County.

Table 10

Retail Trade Statistics

	1958 Census of Business			Payroll
	<u>Sales \$</u>	<u>Sales per Capita \$</u>	<u>Employees 1958</u>	<u>year 1958 \$</u>
Hampshire County	87,697,000	850	3,577	8,787,000
Northampton	38,477,000	1,280	1,784	4,364,000
Amherst	10,992,000	801	422	1,130,000
Easthampton	11,139,000	904	388	1,009,000

Selected Types of Sales

<u>Types of Business</u>	<u>County</u>	<u>Northampton</u>	<u>Northampton as % of County</u>
All Retail Sales	87,697,000	38,477,000	43.9%
General Merchandise	6,691,000	4,435,000	66.3%
Food	23,363,000	9,479,000	40.6%
Automotive Dealers	13,578,000	6,873,000	50.6%
Apparel	4,743,000	3,379,000	71.2%
Furniture	3,625,000	1,481,000	40.9%
Population	103,229	30,058	29.1%

Table 11

Statistics of Selected Services

	1958	Census	of Business	
	Receipts \$	Receipts per \$	Capita Employees 1958	Payroll, year 1958 \$
Hampshire County	8,047,000	78	895	2,060,000
Northampton	3,772,000	124	499	1,177,000
Amherst	1,090,000	80	396	883,000
Easthampton	735,000	60	137	349,000

Northampton, percent of County receipts : 47.5%

Table 7 gave population projections for the Area of Influence and for certain of its parts. These figures show that the immediate suburbs of Northampton (Easthampton, Southampton, Westhampton, Williamsburg, Hatfield and Hadley) are likely to have a combined population of 32,000 by 1980. Today these account for approximately 24 percent of Northampton's retail business. If their population and their volume of retail purchases in Northampton nearly double by 1980, their portion of the City's retail business would then be equivalent to about 50 percent of today's total retail activity. Similarly Amherst is expected to grow to around 20,000 by 1980. It now accounts for about 12 percent of Northampton's retail sales. Table 12 shows the potential increase in today's retail volume from the projected increases in population.

The Chamber of Commerce study referred to on Page 5-a- indicates that approximately 85 percent of Northampton's retail business today comes from the Area of Influence. From Table 12 it appears that this 85 percent could increase to 133 percent of today's volume by 1980, a jump of nearly 90 percent. The actual increase in retail business done in the City will depend almost entirely on the aggressiveness which is shown in modernizing and revitalizing the central business district and its approaches. It becomes evident that a doubling of the amount of business here could be achieved in the next 20 years.

This would mean an annual volume of 75 to 80 million in terms of today's dollars, and represents the total business which might be done in the entire city. Of the total, roughly half might represent the volume of the central business district. It is essential to plan for an adequate area within which to develop the future business center along thoroughly modern lines. If the 1980 volume of business in the central area is one half of 80 million, or 40 million, the gross building floor area would have to be in the neighborhood of 500,000 square feet, or an equivalent of one square foot to \$100 of annual sales, as an average for all types of businesses. For a modern shopping center, with adequate room for access, parking, unloading and servicing, the land area will have to be about five times the floor area, which would mean that the central business district should contain about 60 acres.

The Master Plan indicates a first priority urban renewal area which could provide approximately 25 acres. Later renewal of land north of Main Street and of other adjacent blocks can provide the balance when needed.

Table 12

Potential Retail Sales, 1980

<u>Residence of Northampton Customers</u>	<u>Percentage of Today's Northampton Retail Business</u>	<u>Increase of Population Projected to 1980</u>	<u>Index of Future Retail Business as Percentage of Today's</u>
Northampton Suburbs: (Easthampton, Southampton, Westhampton, Williamsburg, Hatfield, Hadley)	44.6%	40%	61%
Amherst	12.0%	40%	17%
Balance of Area of Influence	4.3%	100%	9%
Business from transients and out of area	85.0% 15.0%		133%
	<u>100.0%</u>		

CHAPTER II

NORTHAMPTON'S CENTRAL BUSINESS DISTRICT

Retail Business and the Economic Base

Retail trade and retail service occupations make up one of the most important segments of Northampton's economic life. Nearly one third of those employed in the City in jobs covered by unemployment compensation insurance are engaged in these occupations. According to the latest U.S. Census of Business (1958), Northampton's annual payroll for employees of retail stores amounted to 4 1/3 millions of dollars.

In Massachusetts each resident spends an average of \$1212.00 a year for retail purchases, again using 1958 Census figures. In a metropolitan county like Hampden, the per capita average of retail purchases is just under \$1200.00. This is brought up by the concentration of city stores in Springfield and of chain establishments in West Springfield. The per capita average of retail business in these two communities in 1958 was about \$1475.00.

A more rural county like Hampshire draws less business to its stores in proportion to population, than the bigger places. The corresponding average here in 1958 was \$850.00 of retail purchases per capita. The City of Northampton is responsible for approximately 44 percent of the retail sales made in the County, although it has less than 30 percent of the County's population. The per capita average of retail purchases in Northampton in 1958 amounted to \$1280.00, somewhat less than the bigger centers like Springfield and West Springfield, but considerably more than the \$800.00 average in Amherst and the \$900.00 average in Easthampton.

These figures indicate how Northampton attracts its area business. This City is particularly strong in sales of apparel and general merchandise, accounting for 71 percent of the County's sales of the former group and 66 percent of the latter. Its automobile dealers make about 50 percent of the sales of automobiles in the County. Approximately half of the employees of retail establishments in Hampshire County are in the Northampton stores, and about half of the annual payroll for this type of work. We saw in the previous chapter that the population of the City's "area of influence" is likely to grow from a population of 70,000 in 1960 to around 95,000 in 1980 and 110,000 in 1990. This alone could mean a 50 percent increase in customers in the next 25 years.

The Importance of the Central Business District

It is therefore clear that providing the best possible facilities for this retail business is a most important function of the Master Plan. Northampton's business center grew up in the age before the automobile. When most patrons came on foot, or later by trolley car, stores could occupy virtually all of the land and compactness made for convenience of the shopper. What few carriages there were could be tied up at the curb. Business was concentrated in a relatively small area, and most buildings had three or four stories or more. These 19th Century structures set the present pattern

for Northampton's center on Main Street and some of the adjacent streets.

Advent of the motor car brought a new kind of shopper, whose vehicle not only takes up space on the streets while moving, but must also have room to park. The drop in the use of public transportation and the universal ownership of motor vehicles has created a congestion which has rendered the old city business centers obsolete.

New types of retail facilities and changes in merchandising have brought about the modern shopping center, with larger store units, lower buildings and ample space for parking. Many of these shopping centers, in order to get sufficient land, have been located in suburban or outlying areas. In many localities this tendency towards outlying business development has threatened the life of the downtown central business district. It may pose a major tax problem, since cities count heavily on the tax revenue from central properties, which carry by far the heaviest assessed valuations of land and buildings, in proportion to area. Many communities have been threatened with the necessity to lower the assessed values of central business property because of loss of trade to outlying shopping centers. In some places this threat has become an actuality.

The Threat to Central Business

This is exactly what is likely to happen in Northampton as the surrounding communities grow. So far, there has been little competition from new shopping centers outside the City, but two new ones have been established within the City, one on the fringe of the central area and one further north. Completion of the interstate highway and growth of neighboring towns will accelerate the outward trend. Northampton and its business community are at the point of decision. Either the central area must be drastically modernized, or it will be outpaced by competition from outside, with resulting drop in property values and consequent losses in tax revenues to the City.

The typical central business district of a city can have many advantages over outlying shopping centers. It usually has a greater variety of stores than are found in the newer centers. It generally has more financial and professional establishments and often contains government offices. Northampton's central district does have these. A person coming to the City's center may go to one of several government agencies, transact business at a bank, consult a lawyer and do his shopping errands all on one trip. But as a disadvantage, he may find traffic congestion and difficulties in parking.

Fortunately Northampton has a wide Main Street and the City has taken steps to provide a certain amount of off-street parking. However, if the central business district is to retain its pre-eminent position and its real estate values, there must be a far-reaching program of rebuilding in order to meet the threatened competition of newer shopping centers.

Revitalizing the Central Business District

Essentially there are two basic requirements for this rebuilding. The first stumbling block is the need for modern buildings, with space suited to to-days's merchandising. Many of the old buildings have useless upper stories. Floors above the second are not generally economic for use, except by a large department or furniture store which has elevator service. We observe that the modern shopping center has almost entirely

low buildings. Old structures are often broken up into small spaces between masonry walls or by short spans between columns. Typical stores today require wider floor space, unencumbered with structural features. This is especially true of the chain store, the "five and ten", the large drug store, the variety store, which make up the heart of the shopping area and create its drawing power. The old buildings are tightly packed onto small lots. New buildings require more space in themselves, and must also have much more land area available for parking. It would be very costly and probably impossible, for any single owner to assemble enough of the old buildings to give sufficient land for a modern shopping center in the downtown area. Yet this is what must be done to preserve the central business district. It is only practical through an urban renewal program, as described later.

The other obstacle to revitalizing the central business district is traffic access and good off-street parking. Not only must the approaches from all directions be convenient and adequate, but they must also be attractive in appearance. People are not drawn to the retail area if they have to pass through congested streets with dilapidated buildings. The immediate approach to the center from the west by way of Elm Street, with its tree lined borders, is very attractive, but some of the other approaches leave much to be desired, both from the point of view of traffic congestion and ugliness. The Master Plan and urban renewal must provide the solutions to these problems.

Northampton's Main Gate

We must remember that the interchange of Interstate Route 91 on Mt. Tom Road will be the entrance to Northampton for a great many people coming from the South. The gap in the dike here might well be termed the City's main gate. But traffic must then follow the narrow and congested Pleasant Street, whose appearance certainly belies its name, or else the equally narrow and largely residential Conz Street. Between these two streets there is a large amount of very uneconomic land, partly in the former bed of the Mill River. This stream was diverted to the westward in connection with flood control measures, and its bed has been partly filled in.

The New Haven Railroad line crosses this area, with a bridge over Pleasant Street. There appears to be a good likelihood that this part of the line may be abandoned at a future date. Local rail service to the Florence area could still be provided from the main line of the Boston and Maine, if the volume warrants.

The plan for the central business district therefore is based on the maximum utilization of the presently waste area along the old river bed. It proposes the redevelopment of the triangle between Pleasant Street and the river bed, up to Main Street, under the federally assisted urban renewal program.

Under this plan, the main traffic artery from the I - 91 interchange will lead up Pleasant Street to a point just below Hockanum Street, where it will follow approximately the old river bed to South Street. Here one branch will lead up to Main Street and another will follow along the railroad line under New South Street to join Easthampton Road near Earle Street. This artery will bring traffic conveniently to the center, with direct access to off-street parking. A future stage of this plan will tie State Street to this artery and eventually connect it to Prospect Street.

The Modern Shopping Center

The plan shows how a modern shopping center can be created, extending from Main Street southward in this triangle. The principal buildings would be grouped in the center, with parking accessible from the proposed artery and from Pleasant Street. Some of the buildings on Main Street would probably be retained, at least in the first stage.

A key feature of the plan is a pedestrian arcade which runs from Main Street south to connect the various stores and the parking facilities. Larger stores, such as chain or department stores, which need considerable floor space, would be located towards the southern end, where open land would be most available, both for buildings and for parking. In many shopping centers this kind of pedestrian circulation takes the form of an open mall. However, in Northampton's climate an enclosed arcade should prove very popular and attractive to customers. Between the larger stores it would have room to provide for smaller specialty and other shops.

Under the urban renewal plan any existing buildings which are structurally and economically sound could be retained, if they can fit into the general scheme. For example, the U.S. Post Office is badly cramped for space. The renewal plan could provide a place either for expansion of the present building or for an entirely new post office. The same is true of such buildings as the Hampshire Gazette and the Northampton Commercial College.

So far discussion of urban renewal has been confined to the south side of Main Street, which contains the largest proportion of the center's retail business. However, future renewal projects should be concerned with gradual redevelopment of the area between King and State Streets, as well as between Pleasant Street and the Boston and Maine railroad line.

The Civic Center

Northampton has a group of public buildings which form a civic center along the south side of Main Street and West Street, all the way from the City Hall at Craft Avenue to the Library. This is very much a part of the downtown center and it should be retained and expanded as needed. The City Hall may be regarded by some as an historical monument and by others as an architectural curiosity, but it occupies a good site, convenient for the public. Between it and the New Haven Railroad track is a property occupied by the electric light and gas companies. It is understood that at least one of these companies proposes to move to a new location.

The City should take steps to acquire this property, to round out the civic center. As evident from the proposed plan for the area, this property will be conveniently located for traffic access. It will provide expansion room for the City's administrative functions and for parking. The City can decide later whether there should be a rebuilding and expansion of the present City Hall, as the community grows, or an entirely new one, on the same site.

The present office building would have room for administrative departments, as the City's growth makes expansion necessary. This property can also provide a site for new fire headquarters, which are badly needed. The location on the major traffic artery of the City would be excellent for this department.

The Federal Urban Renewal Program

The carrying out of what appears to be a very ambitious project is now made possible because of the federal and state programs for urban renewal. Federal assistance is available under provisions of the Housing Act of 1949 and later amendments, administered by the Housing and Home Finance Administration, commonly known as HHFA. Under this program the government advances money for survey and planning and eventually pays three-fourths of the net cost of a project, in cities with less than 50,000 population (two-thirds in larger places).

Urban renewal as a local function is authorized by the State Housing Authority Law. The local agency to execute the actual work may be either the local Housing Authority or a Redevelopment Authority. The state at present pays one half of the net cost.

The cost of an urban renewal project includes acquisition of properties, demolition of structures, necessary improvements to make the land usable for the planned purposes, along with costs of planning and administration. This is referred to as the gross cost. Deducting the returns from the subsequent sale of the property for re-use gives what is known as the net cost. Under the present state program, the City's share of this net cost is reduced to approximately one-eighth of the total net cost.

It is not necessary that all structures in a project area should be cleared. Those which are still useful and in good condition may be retained and rehabilitated as needed. There are also many ways in which the locality may obtain credit toward its share from improvements and other activities which it may do in connection with the project.

CHAPTER III

CONSERVATION OF NORTHAMPTON'S NATURAL RESOURCES

Northampton's Land

Northampton contains within its bounds a land area of about 22,400 acres, varying from compact city to rugged wilderness and flood prone meadows. Only about 3,500 acres are now intensively used by residences, business establishments, institutions, streets and other development. Another 2,400 acres consist of land occupied by parks, golf courses, the State and Veterans' Hospitals, open land of the Smith Agricultural School, the City's reservoir system in Leeds and similar large reservations.

This leaves a total of approximately 17,000 acres which have not yet been used for development or some special reservation. But about 4,500 acres of this are too steep or rugged for normal urban or "suburban" development. Approximately 500 acres are swampy or too poorly drained for satisfactory use for building. In addition, about 2,700 acres are contained in the meadows along the Connecticut River, which are subject to periodic flooding and therefore unsuitable for building development. By process of elimination we find that Northampton has approximately 9,000 acres of land which is topographically suitable and available for expansion of the community as it grows.

How Much More Will Be Needed ?

In the first chapter, we saw that Northampton may expect a future population of 50,000 in the next thirty years or so. This means that there will be about 20,000 more people than today or something like 6,000 more families. Some of the older residential areas may give way to business or industrial uses. Younger families tend to move into new housing developments in outlying areas and there is less crowding in older apartment sections. Even without any population growth there would still be a certain amount of new house development.

Provision for new population and for replacement of old housing in the foreseeable future will therefore require upwards of 6,000 dwelling units and perhaps as many as 7,000 to 8,000. The amount of land which they will occupy will depend on the type of housing. Most of the new home building today in Northampton is on lots of at least 10,000 or 15,000 square feet. In the future, there may be some apartment building, although in a place like Northampton it will probably not be built at a very high density. Even assuming that the City will have 8,000 new homes and that they will occupy, along with new streets, an average of a half acre each, they will only occupy a total of around 4,000 acres. This is probably a high estimate.

This provision for new homes will require considerably less than half of the 9,000 acres of suitable land mentioned above. New industrial development may occupy 1,000 or 1,500 acres. In round figures, the picture is something like the following:

Present built-up area	3,500 acres	
Future residential and other development	<u>5,500</u>	
Total future developed land		9,000 acres
Present reservations	2,400 acres	
Steep and rugged land	4,400 acres	
Swampy and poorly drained land	500	
Flood plain	2,700	
Land suitable for development but not needed	<u>3,400</u>	
Total open land in future		<u>13,400 acres</u>
Total land area		22,400 acres

From these figures it is seen that Northampton's future urban development is not likely to require more than about two-fifths of its total land area. More than 60 percent of the total will remain open. Formerly agricultural operations took up most of the open areas. But today farming is fast disappearing from this vicinity, except in the flood plain. On the other hand open space becomes increasingly important to the growing population. In past generations there was plenty of open land for hunting, fishing, hiking and camping, even though much of it may have been private property. But today, as development takes place, the community must step in to insure the preservation of these amenities to good living.

The great advantage which Northampton possesses as a city is the availability of open space for recreation and enjoyment close to its homes. In the city proper, the foresight of a previous generation has provided open space in the form of such places as Childs Park, Look Park, the Smith Agricultural School land and others. Today we can no longer rely entirely on the generosity of private individuals, but must take community action to meet the need of the future.

A Conservation Commission

The problem of preserving open space is not unique to Northampton. For this purpose the state law now authorizes a city or town to establish a conservation commission, with power to acquire and manage land. The state also makes contributions towards the cost of land purchase and there is also a federal program for the same purpose. A conservation commission may accept the gift of land and it may also acquire an easement rather than full ownership, as in the case of protecting the view at a scenic spot.

Northampton should certainly establish a conservation commission and give it the means gradually to carry out a long range program.

The Mill River Valley

One place where conservation activity might start is the Mill River valley. At its mouth there already exists the Audubon Society's wild life sanctuary. Further upstream the river flows through property of Smith College and the State Hospital. It should be practicable for the conservation commission to acquire enough of the latter property along the river to protect the stream and to create a park along its banks. Further upstream the city, through its conservation commission, should gradually acquire strips of land along the banks wherever practical.

A specially scenic area lies along Riverside Drive, downstream from Nonotuck Street. Maine's Playground is located in this stretch. This entire length should be acquired and its natural beauty preserved. Above the industrial section at Pine Street there is another stretch which should be included, up to the area where the river flows between Look Park and the country club. Acquisition should also extend through the Leeds area wherever practical.

This program should eventually put in public or semi-public ownership the entire length of the Mill River through Northampton. Most of the length of the banks could be kept in a natural state, with paths and sitting places developed where desirable. In some spots there is probably room for playground or other recreation facilities. At some points there will be need for conservation measure to check erosion and to contribute to flood control. The detailed planning of these projects should be one of the first activities of the new conservation commission.

The Oxbow

Northampton has another water asset in the Oxbow at the south end of the City. While construction of the new interstate highway will infringe on it, it will still be equivalent to about a mile and two-thirds of the Connecticut River and much safer for small boats. The Audubon Society Refuge borders it in one area and all of it is surrounded by flood prone land. Part of the southerly bank is in the town of Easthampton. Because of the danger from floods, no residential structures should be permitted in this area. Through the proposed Conservation Commission the City should acquire the shores of the Oxbow to preserve them for public enjoyment and recreation. There could be public launching ramps and marinas for small boats as well as picnic and fishing areas.

The Meadows

As mentioned above, nearly one-eighth of the City's land area lies in the meadows along the Connecticut River, from the Oxbow northward. They lie on both sides of the main railroad line and Mt. Tom Road. Some parts of the meadows are frequently flooded in the spring high water and virtually all of their area has been covered in major floods. Upstream flood control measures have not reduced the potential flood level sufficiently to insure these areas against flood damage, although the rest of the City's low lying land in the central district is now protected by the dike system.

In view of the flood hazard, these meadows should not be developed for building purposes. Much of their area is now used for agriculture and this should be encouraged. Certain sections, especially where there are swampy conditions, may be reserved as wild life refuges. Along the bank of the Connecticut River there is an opportunity for further development of marinas, boat launching facilities, picnic areas and other recreational activities. The proposed conservation commission should make a thorough study of the entire river front and meadow area and should carry out a long range program to acquire land for conservation and recreation purposes. Under such a program this commission could lease any of its land suitable for agriculture or could arrange for operation under private auspices of recreation facilities.

Forest Land

Approximately one quarter of Northampton's land is steep and rugged, much of this covered with forest. The City already owns a substantial acreage of this type, around the Leeds Reservoir, which can be the start of a larger city forest. We have seen before that the community has plenty of good land to accommodate its foreseeable population. The more rugged and remote areas are not likely to be extensively used for any development, except for recreation and forestry.

Rising taxes and the burdens of holding large tracts of land will tend to reduce the urge which private individuals may have to own extensive wilderness areas. On the other hand the growing urban population will need more and more facilities for hunting, fishing, camping, hiking and picnicking. Therefore the trend towards more and more public ownership of wild land, will go on, as evidenced by the expansion of national and state parks and forests everywhere.

The planning and acquisition of city forest lands is another activity for the conservation commission. Over a period of years the reforestation and proper forest management of city owned land in this category can be made a profitable operation, as well as enhancing the recreational value to the residents. In time the city forest area could extend along much of the western boundary. Another suitable area is in the North Farms section, especially in the valley of the Broad Brook.

"City of Open Space"

We have already noted the advantages which Northampton has in the nearness of open spaces to its urban residents and in the fact that it is more a group of separate neighborhood communities, rather than a single sprawling city. Parks and other open areas are interspersed between compactly built sections. It is important to keep this character in the new areas which grow up in the future. The Master Plan gives an indication of open spaces which should be retained in some of the places where present growth is most apparent. As subdivision takes place in the future, the Planning Board should see that provisions are made to insure continuity of this policy. The Board should recommend acquisition by the City of properties needed to carry it out and in this way to keep Northampton a "City of open space".

In view of the flood hazard, these meadows should not be developed for building purposes. Much of their area is now used for agriculture and this should be encouraged. Certain sections, especially where there are swampy conditions, may be reserved as wild life refuges. Along the bank of the Connecticut River there is an opportunity for further development of marinas, boat launching facilities, picnic areas and other recreational activities. The proposed conservation commission should make a thorough study of the entire river front and meadow area and should carry out a long range program to acquire land for conservation and recreation purposes. Under such a program this commission could lease any of its land suitable for agriculture or could arrange for operation under private auspices of recreation facilities.

Forest Land

Approximately one quarter of Northampton's land is steep and rugged, much of this covered with forest. The City already owns a substantial acreage of this type, around the Leeds Reservoir, which can be the start of a larger city forest. We have seen before that the community has plenty of good land to accommodate its foreseeable population. The more rugged and remote areas are not likely to be extensively used for any development, except for recreation and forestry.

Rising taxes and the burdens of holding large tracts of land will tend to reduce the urge which private individuals may have to own extensive wilderness areas. On the other hand the growing urban population will need more and more facilities for hunting, fishing, camping, hiking and picnicking. Therefore the trend towards more and more public ownership of wild land, will go on, as evidenced by the expansion of national and state parks and forests everywhere.

The planning and acquisition of city forest lands is another activity for the conservation commission. Over a period of years the reforestation and proper forest management of city owned land in this category can be made a profitable operation, as well as enhancing the recreational value to the residents. In time the city forest area could extend along much of the western boundary. Another suitable area is in the North Farms section, especially in the valley of the Broad Brook.

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Suitability of Land for Development

Map 3 shows the character of Northampton's land and its suitability for future development. Cross-hatched areas are those whose average slopes exceed 15 percent and are therefore too steep or rugged for practical suburban development. These areas may contain a few isolated houses, but will not in general be used for ordinary subdivision. The map also shows land subject to flooding and swampy areas. Land which is already built up is indicated in black and the larger institutions, parks and other reserves are shown by a dotted tone. The remaining white areas are those most suitable and available for future development. Table 13 gives the acreages in each of these categories by neighborhoods as the latter are delineated on Map 5

Table 13

Classification of Land in Northampton by Neighborhoods

<u>Neighborhood</u>	<u>Slopes over 15 percent</u>	<u>Swampy Areas</u>	<u>Flood Plain</u>	<u>Institutions and Reservations</u>	<u>Built-up Areas</u>	<u>Streets</u>	<u>Remaining land suit- able for Development</u>	<u>Totals</u>
	<u>acres</u>	<u>acres</u>	<u>acres</u>	<u>acres</u>	<u>acres</u>	<u>acres</u>	<u>acres</u>	<u>acres</u>
1	240	100	130	180	380	100	1190	2320
2	30	-	-	50	275	70	5	430
3	-	-	1630	50	195	60	15	1950
4	60	85	940	220	460	100	45	1910
5	340	30	-	110	120	60	1300	1960
6	5	-	-	30	165	45	25	270
7	5	-	-	-	170	50	25	250
8	430	80	-	-	230	40	990	1770
9	1620	165	-	80	330	130	3075	5400
10	1580	60	-	770	290	100	1920	4720
Not in Neighborhood	<u>70</u>	<u>-</u>	<u>-</u>	<u>960</u>	<u>90</u>	<u>30</u>	<u>270</u>	<u>1420</u>
Totals	4380	520	2700	2450	2705	785	8860	22400

CHAPTER IV

RESIDENTIAL NEIGHBORHOODS AND CITY SERVICES

Growth of the City

A glance at a map of Northampton shows how the urban development of the City has followed a compact area approximately a mile to a mile and a half wide along the north side of the Mill River. This came about from the nature of the land and especially from the use of water power which brought industries to the banks of the Mill River. This encouraged development in a diagonal line across the City's territory from the edge of the flood plain north westerly to Leeds.

When the community grew to the point of needing sanitary sewerage facilities, the drainage basin of the Mill River provided the main stem of the system. As expansion took place the system was gradually extended and trunk sewers installed, flowing to the treatment plant located alongside the original river bed, on Hockanum Road just inside the protective dike. This has provided service for virtually all of the compactly built up urban area.

In recent years home building has begun to spread to some outlying sections, beyond the reach of the sewer system. Where houses are scattered and on reasonably large lots, sewage disposal can be handled individually by septic tanks. But when an area becomes compactly built up, sanitary problems arise and the community is faced with the necessity of building additional sewers, often at considerable expense.

The most active area of home building at present is in the Ryan Road section, where an entire neighborhood is springing up. It has developed to the point where a public sewerage system is necessary. The City is in the act of constructing a trunk sewer through low land immediately southeast of Ryan Road. This line fortunately flows by gravity to the Mill River valley and thus connects with the present system and treatment plant.

However, there are places south of the Ryan Road area where the land slopes towards the south and into other watercourses, away from the Mill River valley. To install sanitary sewers here would involve the high cost of constructing and operating pumping equipment or separate treatment plants. The same situation exists in much of the area along the north side of Bridge Road and in the area south of Burts Pit Road.

The Master Plan for Sewerage

Northampton had a study of its future sanitary sewerage problem made in 1958 by the consulting engineering firm of Morgenroth Associates. While this survey showed how it would be possible to serve virtually the entire area within the city limits by a public sanitary system, it did indicate that many sections could be served only by the installation of pumping plants and very long trunk lines.

In addition to the Ryan Road section, there is an area along Florence Road, to a point just north of Burts Pit Road, which can be served by the sewer system without difficulty. Service can also be readily extended along Spring Street, beginning at its southerly end. Eventually the construction of a rather long trunk line on Spring Street would permit development with sanitary sewer service along its whole length and at the lower end of Chesterfield Road as well as the west side of Leeds.

On the east side of Leeds, the present main sewer lines extend up Haydenville Road to East Center Street, as well as into the older part of Leeds on the east side of the river. This permits some development in Leeds without undue difficulty or cost.

An existing sewer extends up North King Street to Pine Brook Curve and thence across to Cooke Avenue to the corner of Hatfield Street. This facilitates the development with sewer service of a limited area in between Cooke Avenue, Hatfield Street and Bridge Road, including a small section on the north side of Bridge Road near the corner of Hatfield Street.

Elsewhere in the City, connection to the public sewerage system would prove difficult and costly. Especially where houses are spread out and clusters of developments are widely dispersed, it is not economical to provide sewer facilities, if it means long lines and in some cases pumping equipment or separate treatment plants.

The proposal of the Morgenroth study for serving the area north of Bridge Road, between the Veterans' Hospital and a point opposite Chestnut Street, including the North Farms Road section, is by a trunk sewer running northward down the valley of Broad Brook to a point near the City's northern boundary, from which it would be pumped to a line to be installed in upper North King Street and thence would flow by gravity into the existing system. However, the construction of the interstate highway makes this latter line rather impracticable, and this leaves this entire northern section of the City, which is now completely rural, in the position of being difficult to serve with sewers in any case.

The Morgenroth report also shows the difficulty of serving the portions of the City south of Burts Pit Road. The area here and along Westhampton Road west of Florence Road drains into Parsons and Bassett Brooks, flowing south into Easthampton. Sewage from the whole area would have to be collected at a point in the Brook valley, near the City's southern boundary, and pumped up to a high point on Rocky Hill Road, east of Florence Road, from which it could flow by gravity along Rocky Hill Road to the present line near the State Hospital, a total length of well over two miles. There are similar difficulties for serving the lower Easthampton Road area.

Housing Development and the Sewer System

It is obvious, therefore, that it will be far more economical for all the taxpayers of the City if the compact type of development, which is likely to require public sewers, is kept within the areas where the extension of this service is most feasible and economical. As mentioned above, this means chiefly the Ryan Road section served by the new trunk sewer, and the northerly part of Florence Road and vicinity. It also includes land near the existing sewers on the east side of Leeds and some along the south end of Spring Street. A limited area was also mentioned in the Hatfield Street - Cooke Avenue section.

Other parts of the City should be planned for development at a low density and with large enough lots so that public sanitary sewers will not be required. This means that where soil conditions are excellent for absorption, all lots should be at least one half acre in area for each family, provided that the lot is served by the public water system. In areas where soil conditions are not excellent for sub-surface sewage disposal purposes, or which are not served by the public water supply, the lots should contain at least one acre for each family. Where soil conditions are bad a greater area may be needed, or building may be impossible. This puts a great responsibility on the Planning Board and the Board of Health when it comes to administering subdivision control.

How Many New Homes by 1980 ?

In recent years home building in Northampton has resulted in an average of slightly more than 100 new dwellings a year, almost all of them single family houses. In the next 10 years this is likely to be stepped up, as population pressures increase. In the first chapter projections of future population were discussed. It was shown that the City may have a population of 42,000 by 1980 an increase of 12,000 over 1960. This means something like 4,000 new dwelling units and possibly more to replace existing ones. To build 4,000 homes in the next 20 years would require approximately twice the rate of the past decade. But this gives an idea of what planning should provide for.

Some of these dwelling units will be in apartment projects in the urban sections, but probably not more than a few hundred. There will also be room for some single houses in the older neighborhoods, where there are vacant lots or extra space today. But unless there is a complete reversal of the trend towards decentralization, home ownership and suburban type of living, the bulk of the new housing will be provided by subdivision of land and home building developments.

Northampton has room for all kinds and sizes of homes. Expansion of industry and business will bring an increasing number of persons who are looking for larger houses with ample grounds. Assurance that this type of accommodation can be found is one of the big factors which influences the management of industrial enterprises to locate in a particular community. Northampton should encourage the development of areas for housing of all cost ranges.

Rural, Suburban and Urban Areas

Northampton's older residential areas may be described as mostly "urban", where houses are generally close together and where many of them accommodate more than one family. Almost all of the "urban" areas now have paved streets, sidewalks, public water supply and sewers. The term "suburban" describes the newer areas on the outskirts where much of the new building is taking place, mostly single family homes. These are less compactly developed than "urban" areas, but also need paved streets and public water supply. Many "suburban" areas will also require sewers.

"Rural" can apply to most of the rest of the City where city utilities are not usually available. Most of the larger houses will probably be built in rural areas. However, the bulk of all the new homes will be in the suburban areas, and on lots averaging at least 100 feet wide or more, and at least 150 to 200 feet deep. The Master Plan indicates where these suburban areas should be located, where it is most feasible and economical to provide public

sewers. The areas designated for suburban type of development include approximately 1,500 acres, exclusive of any land needed for parks, playgrounds, schools or similar purposes, other than homes. After making allowance for streets, there will be an average of about two families to the acre in suburban areas. Therefore they can accommodate approximately 3,000 new dwellings or around three quarters of the probable building volume of the next twenty years.

Additional dwelling units will be provided in the older parts of the City or what may be called the present "urban" areas. There is some vacant land here which could be economically occupied. Some dwelling units will be provided in apartment or other multiple housing projects and some by conversion of existing single family houses to accommodate two or more families. In all, it is likely that these "in-town" areas will provide space for at least 500 more families than at present. Another 500 homes can easily be located in the outer areas, where lots averaging at least one acre should prevail. These figures add up to the total of 4,000 new dwelling units mentioned above as being the probable volume of new home requirements in the next 20 years.

So far the reasons for arranging the "suburban" type of housing in fairly compact areas have been related to the feasibility and efficiency of providing a public sanitary sewerage system, but there are others as well. The City is called upon to provide all kinds of services to its residents. The most costly service is education of children. If residences are scattered all over the whole area of the City, provision of school facilities and particularly transportation of pupils to schools will be very costly. A grouping into more compact neighborhoods, as proposed by the Master Plan, will permit a much more economical school system, in which at least the elementary schools can be more closely related to the actual areas of homes.

Other services are also more economically furnished if development is concentrated in specific neighborhoods. Less length of streets is needed and the work of departments such as police and fire is simplified if residential development is not too decentralized. Northampton's water supply system serves the central areas and extends in many places into the rural sections. The City is now giving consideration to enlargement of its reservoirs to insure an adequate supply for future growth. Service to residential neighborhoods will obviously be most economical if they are compactly located.

Water Supply

Northampton has its own public water supply system, which services almost all of the built up areas. At present the system can supply water to portions of the city which are below an elevation of approximately 300 to 330 feet, except in Leeds where a special standpipe can give service to approximately 430 feet above sea level.

The principal supply is from a watershed in West Whately, comprising Beaver Brook and West Brook. The Mountain Street Reservoir there has a capacity of 350 million gallons and the watershed now has a safe yield of about $2\frac{1}{2}$ million gallons a day.

The original supply was from the watershed of Roberts Meadow Brook, partly in Westhampton. This is now unsatisfactory because of pollution, color and taste. This source is now used only in times of extreme dry weather. Its water must be heavily chlorinated. To use it regularly would require rapid sand filtration, which would result in a high cost of operation.

The City has also installed two wells with a yield of 2.2 million gallons a day, and which are used when necessary. The well supply could ultimately have a safe yield of $3\frac{1}{2}$ million gallons a day. Total consumption in the City was 1.1 billion gallons in 1961, or an average of slightly more than 3 million gallons a day. This is equivalent to roughly 100 gallons a day per capita.

The City had a study of water supply made by Whitman and Howard, consulting engineers of Boston, in 1957. Most of the above data are taken from their report. They have recommended a second reservoir in the West Whately watershed, where the City already owns 2,400 acres of land. This could bring the daily safe yield from that source to $5\frac{1}{2}$ million gallons a day. Additional storage within the City will be needed to meet future growth and to comply with Fire Underwriters' standards. Whitman and Howard recommend the eventual construction of a storage standpipe on Baker Hill and urge the acquisition of a site.

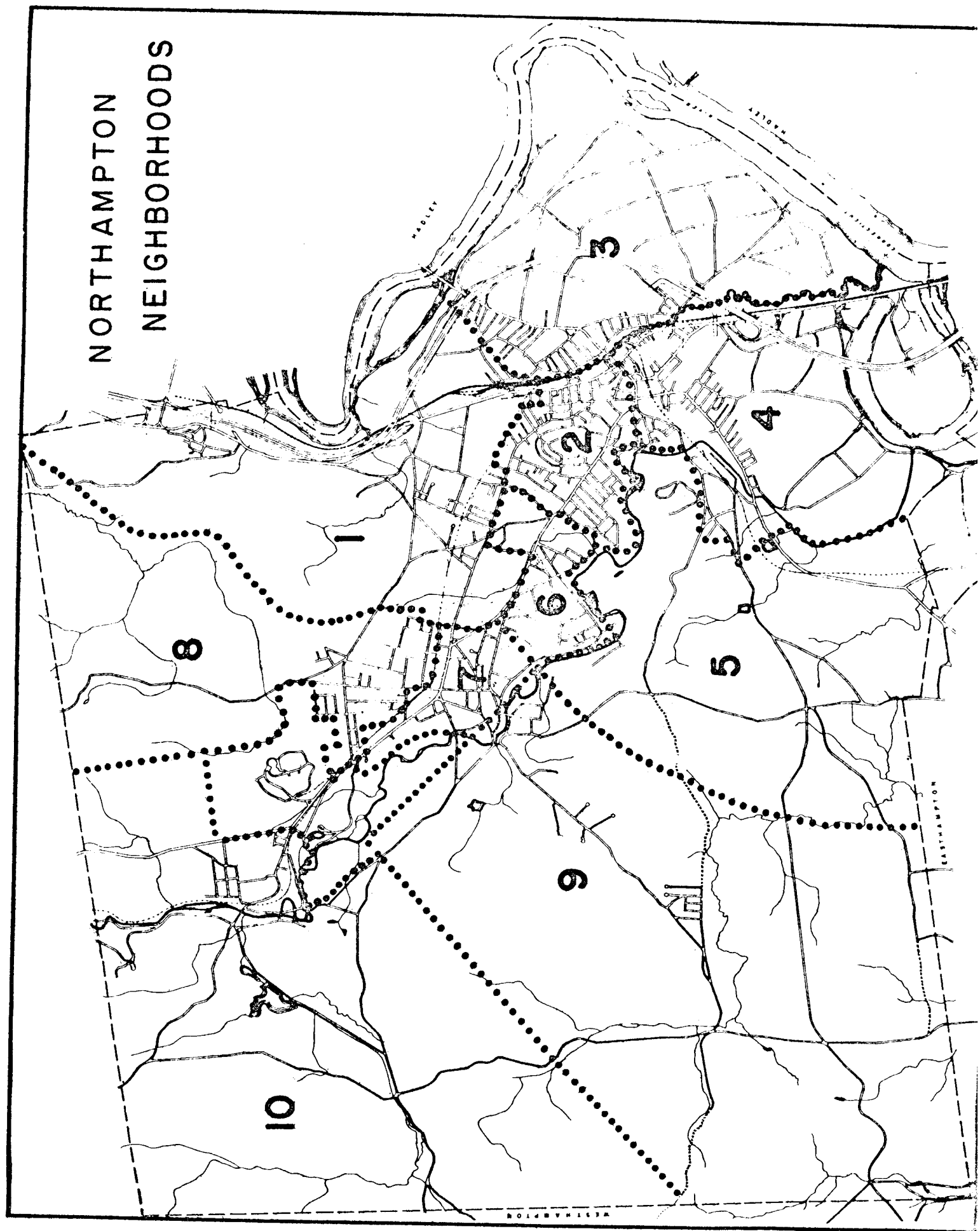
Map 8 shows the extent of the present distribution system. It also shows the areas which are at too high an elevation for present service, without special pumping equipment. For most economical operations, any type of development, other than low density rural homes, should be kept in the areas where present supply is topographically feasible. Where water supply is not readily available, the zoning should require lots of at least one acre because of the necessity for private wells.

Considerations related to planning reinforce the consulting engineers recommendation for a new reservoir to increase Northampton's supply. This should be undertaken without delay. Otherwise the major improvements needed for the systems will consist largely in a gradual replacement of inadequate and obsolete mains and in providing greater storage capacity within the City.

Sanitary Sewerage

There was a discussion of the City's sanitary sewerage system and its relation to development in Chapter IV, Pages 15, et seq. Map 9 shows the general layout of the present system, together with extensions of principal main sewers proposed by Morgenroth Associates in their study of 1958. The map also shows areas where it is most practical and economical to extend the system, as previously discussed.

NORTHAMPTON NEIGHBORHOODS



NEIGHBORHOODS AND SCHOOLS

Northampton's Neighborhoods

The previous chapter has given us a picture of the future requirements in residential space. We have also mentioned the fact that Northampton is a community of residential neighborhoods and that these are in many cases separated by open space. The accompanying map shows how the City is logically divided into these neighborhood areas. We should now study them to see which of these have room for growth and what their future populations will be. This in turn will give us a basis for estimating the future needs for school, recreation and other public facilities.

Data concerning these neighborhoods are obtained from detailed reports of the 1960 U.S. Census. The City divides itself logically into ten such areas. The whole City is included in one or another of them, except for certain large institutional or recreational areas. Map shows by crosshatching the parts of these areas which will in the future have little or no residential population. It is therefore almost entirely in the white areas of the map that the future population will be located.

Area 1 includes the Section north of Locust Street and the branch railroad and extends northerly to include upper North King Street and the Coles Meadow Road vicinity. At present its population is mostly in the part south of Bridge Road.

Area 2 might be referred to as the Smith College - Round Hill area, lying between the center and Childs Park and the High School.

Area 3 contains the Bridge Street section and coincides with Ward Three.

Area 4 includes most of the central business area, including Pleasant Street, together with the residential area along and near South Street.

Area 5 lies southwest of the State Hospital and is largely rural at present.

Area 6 includes what is generally known as Bay State, lying west of the High School and mostly south of Elm Street.

Area 7 contains the center of Florence south of the branch railroad.

Area 8 includes the part of Florence north of the tracks and also extends northward to take in the undeveloped section along North Farms Road.

Area 9 takes in the Ryan Road vicinity and the Southwest corner of the City.

Area 10 includes Leeds, along with the rural northwest section of the City.

Leeds is separated from the rest of Northampton by the Veteran's Hospital, Look Park and the Country Club.

In the 1960 Census there was a separate enumeration of people actually living at the principal institutions, including staff and students or patients. The numbers of persons counted in this manner is :-

Persons Living at Institutions, 1960

Smith College	2,256
Private Schools	239
Hampshire Sanitarium	52
U. S. Veterans' Hospital	1,167
Northampton State Hospital	<u>2,561</u>
Total Living at Institutions	6,275 *
Resident Population of the City	<u>23,783</u>
Total, 1960	30,058

The Resident Population

Of the resident population of the City, nearly two thirds live in the compactly built-up neighborhoods which are designated as Areas 2,3,4,6 and 7 on the map. Most of the people living in Areas 1 and 8 are in the compact parts of these two neighborhoods and if these are included, we find that more than 85 percent of Northampton's residents live in the more urban parts of the City. The other 15 percent live in the "suburban" areas, such as Ryan Road and Leeds and the outlying rural parts. The Table below gives the 1960 population of the neighborhood areas. It also gives the number of households in each and the average number of persons in each household:-

Northampton's Neighborhoods, 1960

<u>Neighborhood</u>	<u>1960 Population</u>	<u>1960 Households</u>	<u>Average Household Size</u>
1	2131	632	3.5
2	4506	1703	2.6
3	3996	1299	3.1
4	3587	1349	2.7
5	782	227	3.4
6	1276	380	3.4
7	1774	537	3.3
8	2442	697	3.5
9	2070	542	3.8
10	1169	327	3.6
Totals	<u>23783</u>	<u>7693</u>	<u>3.1</u>

* Housing units at institutions are occupied by 286 persons. Adding these would give a resident population of 24,068.

Looking at the accompanying map, we see the pattern of future residential neighborhoods, and which of these have the greatest potential for growth. Five of them appear as older built-up neighborhoods occupying relatively small areas. Some of them may actually lose population in the future.

The Growth Pattern

Unless there is a very extensive trend towards large apartment projects, Neighborhoods 2 and 3 are not likely to increase appreciably in population. Some of the present population in Neighborhood 2 along and near King Street may be displaced by business uses, so that there will have to be some increase in density in the rest of it, if its population is not to drop. These two neighborhoods together have a resident population of about 8,500 today and are not likely to gain more than about 1,000.

Neighborhood 4, along South Street, has a small amount of suitable land for additional housing and some apartment projects are likely here. The total area designated as 4 on the map contains a number of residences in the business center, especially along Pleasant Street, which will probably be displaced by business. However, there may well be an increase of perhaps 1,000 residents above the 3,600 now in this area.

In Neighborhoods 6 and 7 there are occasional spots where obsolete buildings may make urban renewal feasible. This may provide sites for some multiple housing and bring about an increase of 1,000 to 2,000 above the present population of the two areas, which is now about 3,000.

Of the outlying sections, Neighborhood 9 may be expected to show the largest growth, mostly in the vicinity of Ryan Road. In this neighborhood there are approximately 800 acres of land available for residential development and which can be served by public sewers. At the rate of about two families to the acre, this can mean an increase of around 5,500 residents when fully developed. In addition, there is likely to be considerable development on larger lots scattered through the rural portions. This neighborhood, therefore, may eventually increase its present population of about 2,000 residents to something like 8,000.

Leeds, which is designated as Neighborhood 10, has around 120 acres available for development with sewers, as well as large and desirable sections for rural types of residences. Its population is likely to increase by 2,000 to 3,000, in addition to the present 1,200 residents.

Neighborhood 8 includes an area south of Bridge Road, which is predominantly built up, together with a large undeveloped rural section to the north. Because of the topography there are only about 100 acres of undeveloped land which can be economically served by public sewers, the rest of the area drains northward so that provision of sanitary sewerage would be very costly, as previously explained. There will therefore be development of a rural type over most of this neighborhood. It is likely that the population will grow from the present 2,400 to around 4,000 or 5,000.

Except for about 100 acres, the entire area of Neighborhood 5 is difficult and expensive to serve with sanitary sewers because of topographic conditions. Its present population is around 800. Most of the future development should be of a rural type and will be distributed over the area. Eventually it may have something like 3,500 residents.

Area 1 has around 300 acres of available land which could be economically served with sewers, in the Bridge Road - Hatfield Street - Cooke Avenue vicinity. This could be increased by extending a trunk sewer up the valley of Pine Brook. It is the largest area suitable and practical for development with sewers, except for the Ryan Road vicinity. The 300 acres could accommodate at least 2,000 residents. There is also a good opportunity for a rural type of development in the rest of this neighborhood. The neighborhood may eventually reach a population of about 5,500, including the 2,000 residents already there.

Estimated Future Population in Neighborhoods

<u>Neighborhood</u>	<u>High Estimate 1990 Target</u>	<u>Low Estimate 1980 Target</u>
1	5500	4500
2	5000	4500
3	4500	4000
4	4500	4000
5	3500	3000
6	2200	1500
7	2800	2000
8	4000	3500
9	3000	6000
10	4000	3000
<hr/>		
Total Resident Population	44,000	36,000
Institutional Residents same as 1960	6,000	6,000
<hr/>		
Total City Population	50,000	42,000

Schools and Population

Future estimates of population and school enrollments are only intended to give a picture of what is likely to happen. It is obvious that unforeseeable conditions may vary the trends of growth and alter these projections. They can, however, serve as a guide to plan for future facilities and capital improvements which the City will have to furnish. These estimates should be reviewed every few years and corrected as circumstances change. In the meantime, we may take a look at the future school needs as they

are pointed out by the neighborhood estimates. Elementary schools are closely related to the neighborhood areas which each one serves. The table below shows the enrollment in public schools in October 1960 in kindergarten through sixth grade, (K-6), by neighborhoods. Enrollment at that date was selected for comparison with the 1960 Census figures of population.

Elementary School Enrollment, October, 1960

<u>Neighborhood</u>	<u>1960 Population</u>	<u>1960 K - 6 Enrollment</u>	<u>Percentage of Population</u>
1	2,181	268	12.3%
2	4,505	356	7.9
3	3,996	490	12.3
4	3,587	312	9.0
5	782	48	6.1
6	1,276	123	9.6
7	1,774	154	8.7
8	2,442	323	13.2
9	2,070	281	13.6
10	1,169	184	15.7
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Totals	23,782	2,539	10.7

This shows that the K - 5 enrollment in public schools is equivalent to about 11 percent of the local resident population. It is interesting to note how the percentage varies from one neighborhood to another. In the older central areas it is lower than the city-wide average, but in the sections where there has been much new home building, like the Ryan Road area in Neighborhood 9 and in Leeds, Neighborhood 10, the percentage is considerably higher.

The prevalence of new families with young children obviously raises the percentage in elementary grades. Since the projected increase in population will bring in many younger families, and because of national trends the city-wide percentage in elementary schools may be greater in the future. If we use a figure of 12.5 percent and compare it with the 1980 and 1990 estimates, for the resident population we find that there would be about 4,500 elementary pupils in 1980 and 5,500 by 1990.

The elementary enrollment has not changed much in recent years. In 1957 it stood at 2,531 and at 2,604 in 1962. In 1950 it was only 1,693, but grew to 2,141 by 1953. From the projections above, it is apparent that greatly increased school facilities will be needed when the City grows in population. There is likely to be an increase of from 600 to 1,000 elementary pupils by 1970 or soon thereafter. Northampton should certainly have a careful plan for gradual and efficient expansion of its schools.

Future Elementary School Load

Since elementary schools serve specific neighborhoods, we can get an idea of the future school load by studying the population estimates for the neighborhoods given in a previous table. The table immediately preceding gives the percentage which the K-6 enrollment now is of the resident population in each neighborhood. Giving consideration to the future character of each neighborhood and to the probable increase in the proportion of children, we can assume a future ratio of the 1980 and 1990 elementary enrollment to the projected population in each neighborhood. This gives us the following notion of what may be the school requirements in these future years.

Projected Elementary School Enrollments

<u>Neighborhood</u>	<u>Assumed Percentage of Population</u>	<u>Estimated 1980 Enrollment</u>	<u>Estimated 1990 Enrollment</u>
1	14%	630	770
2	9	400	450
3	12	480	450
4	10	400	540
5	12	360	420
6	11	160	240
7	11	200	230
8	14	490	560
9	15	900	1,200
10	16	480	640
Total	12.5	4,500	5,550

These projections give an idea of the problem which the community will probably face. The important matter at this time is to see that sites for schools which will be eventually needed are reserved and acquired before intense development makes it very difficult and costly.

A Picture of the Future Schools

Only two of Northampton's elementary schools are modern and have adequate sites for their present buildings by today's standards. These are the Jackson Street and Leeds Schools. The Jackson Street School now houses some 330 children. It occupies a site of $7\frac{1}{2}$ acres, which gives room for play space and necessary parking. However, the estimated 1980 enrollment from this neighborhood is over 600 pupils. Although this increase will not occur all at once, it will eventually require additional capacity equivalent to about 12 more classrooms. If these were to be added on the present site, they would infringe seriously on the playground.

A school for 600 pupils should have a site of at least 12 to 15 acres. Lots adjacent to the present school are very deep, leaving considerable interior land which cannot be developed in house lots without the provision of new streets. The City should acquire

5 to 10 acres of this rear land next to the Jackson Street School at this time, before any housing development takes place. This would insure room for future enlargement of the school and playground to take care of Neighborhood 1, at least through the early 1980's.

The Leeds School occupies a site of 9.3 acres and the City also owns approximately as much more land south of it. This extra parcel should be reserved for school purposes, since it would make a total site area of about 18 acres. This would permit additions to the present building to raise the capacity to 500 to 600 pupils, which would supply the long range needs of Neighborhood 10.

All the rest of the elementary schools have small sites. Two are more than 30 years old and the rest considerably older. Eventually consideration will have to be given to their replacement. The most critical area at present is that served by the Florence School. It now has about 580 pupils, including the Kindergarten children housed at the nearby Lilly Library. They come almost entirely from Neighborhoods 7, 8 and 9. The latter of these is the fastest growing of the neighborhoods and there is also growth in Area 8. Even though Neighborhood 7, in which the Florence School is situated, is not likely to increase appreciably in population, the overcrowding at this school will soon require action.

The City should immediately take steps to acquire an adequate site in the Ryan Road area. It should be large enough, preferably not less than 15 to 20 acres, to provide neighborhood recreation space. Construction of at least the first section of a new school here should be scheduled so that the building could be used within the next three or four years. This would relieve the burden on the present Florence School, simplify the transportation problem and provide for the needs of the fastest growing part of the City.

Consideration should also be given soon to the acquisition of a site in Neighborhood 8 near Bridge Road in the vicinity of North Maple Street. Although construction at this location may not be needed for several years, the site should be secured before the good spots are all pre-empted by housing developments.

Over the next period of 20 or 25 years all of the schools, except Jackson Street and Leeds, should be replaced. In Neighborhood 2, the Vernon Street School is likely to prove insufficient eventually. Its enlargement is not practical without acquiring more land. A site more central to the neighborhood might prove more desirable when the time comes for replacement.

In Area 3, there will probably not be appreciably more pupils in the future than now, but they are housed in two schools, one of which is inefficiently small. Eventually it may prove economical to combine these in one modern school, with adequate recreation space, although it will not be easy to find a site in this neighborhood.

The South Street and D.A. Sullivan Schools take care of the 300 or so pupils living in Neighborhood 4. The latter school is located in the civic center area on the edge of the central business district. This site may some day be better used for another purpose and a new school provided for Neighborhood 4. The present school is adjacent to the Veterans' Field playground. Some enlargement of the present site and combination with the playground might be a good answer.

Neighborhood 5 is likely to have a more rural type of development, because of sewerage conditions. It may be expected to have at the most from 300 to 400 elementary pupils and will probably not reach even that range for many years. Neighborhood 6 is likely to show relatively little growth and will probably not have more than 150 to 200 elementary pupils. At some future date it may be necessary to replace the Feiker School or to enlarge very much its site. In this case this school might take care of both neighborhoods.

Area 7, where the Florence School is located, is not likely to have more than 200 to 300 elementary pupils in the foreseeable future. An eventual replacement for the Florence School should be part of the long range program. This school may also serve part of Neighborhood 9, if it should grow to the higher figure projected above.

From these remarks about elementary schools, we see that the most pressing need will be for a new building in the Ryan Road area. Its site should be acquired immediately. Before many years another new school will probably be needed in the Bridge Road area north of Florence. Additions to the Jackson Street and Leeds schools may be required in the not too distant future, because of growth in those neighborhoods. Elsewhere it will be a matter of gradual replacement of the old buildings with modern structures on adequate sites.

Senior High School

At the level of junior and senior high school grades, the facilities serve more than just neighborhood areas. With the completion of the new Junior High School off Bridge Road the Senior High School plant will need to take care only of the upper three grades. Enrollment in these three grades in the fall of 1960 was 662, equivalent to 2.8 percent of the 1960 local resident population. There has been a rapid growth and in the fall of 1962 it was 850. Studies made by the school department estimate an enrollment of around 1,000 by 1970. This was based on present grammar school enrollment and would be equivalent to about 4 percent of the 1960 local resident population.

If the local resident population should grow to around 30,000 by 1970, there might be about 1,200 pupils in senior high grades. This compares with the present capacity of the building of around 900. Enlargement of the Senior High School will obviously be needed, presumably within the next five years. Although the site is fairly large, topographic conditions limit the areas where additions to the building can be placed. Most of the acreage is low and is used for athletic and playground purposes.

Eventually the enrollment in the top three grades may be expected to reach 1,500 or possibly as high as 1,700. This will occur, probably beginning about 1980. By that time further additions will be needed, so that careful planning of the site will be required to insure its best use. We recommend that a master plan for the ultimate development of the whole site be prepared at once, both for buildings and for athletic and other recreational facilities. In view of the limited space suitable for buildings, the City should investigate the desirability of acquiring the rear of some of the lots on Vernon Street, where there is some high ground which would facilitate a good site plan for building additions. A high school of the anticipated size does not necessarily have to be all in one structure. A form of campus plan may prove desirable in view of the topography. The

City should also acquire additional property in the rear of the Federal Street lots, to give additional playground space. Poor drainage and soil conditions in the low area devoted to athletics will make proper improvements of these facilities there expensive. The layout of football, baseball and other athletic fields should not be hampered by insufficient space due to the irregularities of the City's property lines on the Federal Street and Milton Street side. It is doubtful that Northampton will grow to the point of requiring a complete second senior high school in the foreseeable future.

Junior High School

Enrollment in the 7th, 8th and 9th grades rose from 731 in the fall of 1955 to 1,054 in 1960. It was 1,049 in 1961 and 1,011 in 1962. 1960 enrollment was approximately 4.4 percent of the local resident population. This may increase to around 5 percent in the future. Based on the previous population projections, the junior high school grades could have around 1,400 pupils by 1970 and 1,800 by 1980. Eventually this enrollment may rise to something like 2,000.

The new Florence Junior High School is to have a capacity of 600. The present Hawley School used for junior high purposes has a capacity of 500. These two can accommodate the enrollment for a few years. According to many school authorities the best size for a junior high school is one with not over 700 to 800 pupils. The Florence Junior High has an adequate site to permit enlargement to this size and such an addition is likely to be needed by 1968 or 1970. After that a third junior high will be needed, and the acquisition of an adequate site should not be delayed too long. A logical location would be midway between the Hawley and Florence schools, in the vicinity of the Senior High or the Smith Agricultural School.

Thus the proposed program for provision of secondary schools will include:

About 1968, enlargement of Senior High to 1,200 pupils.

1968 to 1970, enlargement of Florence Junior High to 750 pupils.

About 1975, enlargement of Senior High to 1,500 to 1,700 pupils.

1975 to 1980, construction of third junior high.

Existing Elementary and Junior High Schools

Bridge Street:- Built 1915, addition 1926
Site: 3 acres
12 classrooms plus kindergarten
Capacity 410

William Street:- Built 1912
Site: 1.3 acres
4 classrooms plus kindergarten
Capacity 145

South Street:- Built 1891, addition 1925
Site: 0.7 acres
6 classrooms
Capacity 200

Hawley School:- Built 1904, renovations and additions, 1954
Site: Part of larger civic area
Used as Jr.H.S; 7th - & 8th - grades - After September 1964 will have
7th, 8th and 9th Grades, Capacity as Jr. H. S., 500.

D.A. Sullivan School (Old High School):-
Site: Part of larger civic area, adjacent to Hawley.
7 classrooms plus kindergarten and special class
5 additional rooms used by Hawley Jr.H.S.
Capacity if all used as elementary, 410.

Vernon Street:- Built 1897, addition 1914
Site:- 0.9 acres
11 classrooms plus kindergarten
Capacity 355

Jackson Street School:- Built 1953
Site: 7.2 acres
8 classrooms, library all purpose room
Capacity 240 (classrooms only)

Florence Grammar:- Built 1929
Site: 2.5 acres
14 classrooms plus 3 rooms used temporarily
Capacity 420
(Florence Kindergartens temporarily
at Lilly Library and annex)

Leeds:- Built 1953
Site: 9.3 acres
8 classrooms plus Kindergarten plus 2 rooms used temporarily
Capacity 265

William Feiker:- Built 1929
Site: 1 acre
4 classrooms plus kindergarten
Capacity 145

Florence Junior High School:- Under Construction
Completion, fall 1964
Capacity 600

Summary of Program for Elementary Schools

Neighborhood 1 Enlarge Jackson Street School to 21 to 24 rooms. Enlarge site to at least 12 to 15 acres, without delay.
First Addition to 14-16 rooms about 1968.
Second addition about 1974

Neighborhood 2 Vernon Street School should be replaced, either on same or another site. Theoretically this school should have a site of 7 to 9 acres. Present site might be enlarged somewhat by taking adjacent dwellings. The neighborhood will need 12 to 14 classrooms by 1980.

Neighborhood 3 The William Street School should be combined with Bridge Street. Site of latter should be enlarged as much as possible. The neighborhood will not need more classrooms that at present, but should eventually have a modern school on an adequate site.

Neighborhood 4 Will need about 10 to 12 classrooms by 1980. The Sullivan School may be required as part of Jr.H.S., or for other use in connection with the civic center. Its use for a community college and adult education has been suggested. It will be more efficient to accommodate pupils from Neighborhood 4 in one school. South Street should eventually be replaced with modern building. The present site could be enlarged and used in connection with Veterans' Field.

Neighborhood 5 Will be slow to grow

Neighborhood 6 Will have little further growth. These two may combine using an enlarged Feiker School. In this case the site must be considerably enlarged. Otherwise a new school to replace Feiker may be built on a new site. The two neighborhoods combined will probably need 16 to 18 classrooms by 1980.

Neighborhood 7 Will not have appreciable growth. Eventually Florence School should be replaced, or at least thoroughly modernized. The site should be enlarged as much as possible.

Neighborhood 8 This is the northern part of Florence and will grow considerably. A new school should be built near Bridge Road, and will probably be needed around 1970. The site should be selected and acquired at once.

Neighborhood 9 This is the fastest growing area and will need a school of around 21 to 24 classrooms. It should have 10 to 12 rooms at once. A general location is recommended in the Master Plan. The site should be selected and acquired at once and should contain 15 to 20 acres.

Neighborhood 10 The Leeds School will eventually need to be enlarged to 16 to 18 classrooms to serve this neighborhood. All city-owned land at this location should be retained for school and playground purposes.

Recreation

Existing Large Parks

Look Park, a gift to the community, operated by trustees, has large swimming pool, facilities for picnics, numerous amusements; excellent as a major recreation facility for the City.

Childs Park, a gift to the community, operated by trustees; well maintained and landscaped open space in the center of the city. Suitable especially for strolling and sitting, but little used. It should be maintained in order to preserve the open space, but it may be suggested to the trustees that they consider using certain portions for more active recreation, including playspace for children, tennis courts, croquet etc.

Existing Principal Playgrounds

Bridge Street
Veterans' Field
Maine's
Arcanum
Part of Senior High School land
Small playground at Park and Meadow Streets
Playground off King and State Streets

Existing School Playgrounds

Only the playgrounds at Jackson Street and Leeds Schools have adequate areas to serve as neighborhood playgrounds. Others are small, but fulfill to some extent the function of neighborhood facilities.

Proposed Playgrounds

If Williams Street School is abandoned, its site should be kept as a playground. Playground facilities should be provided at new school locations and enlarged where possible at existing.

It should be possible to secure some playground space within the holdings of the Smith Agricultural School

Senior High School Property

A master plan for the long range development of the High School property should be prepared at this time, providing for the needed building expansion and for the best use for athletics, playground use and other recreation. The site will be more efficient to use if there is some acquisition of adjacent property to round out the boundaries.

Conservation Areas

Development of the Mill River valley, the flood plain areas and city forest areas for conservation and recreation were discussed on Pages 12 to 14.

Private Facilities

The Northampton Country Club and a commercial golf course on Wilson Road cater to the local golfers. The Fair Grounds fill a function by providing for horse shows and similar exhibitions, in addition to the annual fair. Up to now facilities for the boating public on the Oxbow and Connecticut River have been privately provided.

Other Public Facilities

Civic Center

Attention was called in Chapter II to the existing civic center on Main Street, extending from the City Hall northwestward to include the Forbes Library on West Street. It is recommended that the City enter into negotiations with the Northampton Gas Light Company with a view to the ultimate acquisition by the City of their property at the rear of the City Hall. It is understood that the electric company is considering a move to its own property on Konz Street and may therefore vacate the space it has occupied in the Gas Company building.

If the City should acquire this property, it would insure space for enlargement of the administrative offices as well as sites for new police and fire headquarters. The present Gas Company office building could serve as a police headquarters on the lower floor and for departmental office expansion on the upper floors.

The City should also take steps to insure the future acquisition of residential property between the old high school and the Forbes Library, in order to insure adequate space for long range development of that part of the Civic Center. Eventually it may become necessary to enlarge the library itself.

CHAPTER VI

INDUSTRIAL AND COMMERCIAL DEVELOPMENT

Functions of the Central District and Secondary Centers

In the second chapter we discussed the central business district and its functions in the life of the city and surrounding area. In a city like Northampton the central business district is the natural location for all businesses of which there are relatively few units in the trading area, such as department stores, chain stores of the kind which were formerly known as "5 and 10", specialty stores, high grade apparel stores, as well as main offices of banks. In smaller towns the central business district is apt to contain one or more supermarkets and other food stores, but in a city of the size of Northampton there are usually a number of supermarkets which locate on the fringes.

Formerly in all cities there were a multitude of small neighborhood stores, principally for food and household goods. With the growing use of automobiles and the competition from supermarkets, many neighborhood stores have disappeared. There is a definite trend towards fewer and larger groups of business establishments.

In addition to Northampton's downtown central business district, several secondary shopping centers have already been established. At the south end, on Conz Street, there are already a supermarket and a bowling alley as the start of a secondary center. Off King Street, just north of the railroad underpass there is another secondary center, with a chain store, supermarket, and other outlets. Further north, at North King Street near Hatfield Street, another such center has been located.

Urban Renewal in Florence

Florence has long had its own business center on its Main Street. However, this has become congested and consists of too small units to meet today's requirements. This center needs many improvements in order to attract customers. It is in a good location to serve people from the Ryan Road neighborhood and from the area north of the center of Florence. The best way to secure a modern shopping center here is through an urban renewal program, by which it would be possible to assemble sufficient land, to clear away obsolete buildings, to improve street access and to provide adequate off-street parking. In fact this is the only practical way to accomplish it.

An improvement such as this would attract a supermarket and probably a large chain store. It could also have a large drug store, smaller variety and specialty stores, and one or more branch banks. This would result in much needed facilities for the residents of this whole part of the City. An urban renewal program to revitalize the center of Florence should be initiated without delay. Unless there is a very drastic rebuilding here, the Florence business center will become further deteriorated and will be a financial liability to the City. This is one of the most important parts of the Master Plan.

Roadside Business

Many types of businesses do not belong in either the central business district or a secondary shopping center. Operations connected with automotive business, such as gas stations, automobile sales and repair, and garages need considerable space and have characteristics which are not helpful to retail stores. Automotive business in general does best when it is located on principal traffic arteries outside the main business center.

Other enterprises which seek outlying locations include motels and larger restaurants such as the dairy establishment at North King Street and Bridge Road. Distributing and wholesale businesses also look for sites outside the center. These types of businesses, along with the automotive, may be classified as "Roadside Business".

Summary of the Plan for Commercial Development

Northampton's business development, under the Master Plan, may be summarized as follows:

The downtown "Central Business District", extending south from Main Street between the B. & M. mainline tracks and the proposed new traffic artery on the former Mill River Bed, and extending north from Main Street between the tracks and State Street. The portion south of Main Street will contain, as it does today, the larger department and chain stores, and will have room for expanded office buildings and banks. The portion north of Main Street contains numerous public and semi-public buildings, Court House, hotel, registry of deeds, institutions, as well as retail stores and offices. It will continue to develop in this manner, with offices and apartments occupying much of the space as one proceeds north from Main Street.

The Master Plan shows secondary shopping centers at Conz Street just north of the dike, on the west side of King Street, immediately north of the railroad underpass, on North King Street just south of Hatfield Street, and in Florence Center.

There may also be a few limited neighborhood business areas which exist because of the proximity to some institution or which will continue because of neighborhood service. These include the specialty shops opposite Smith College on Green Street, a small area on Chapel and Prince Streets by the State Hospital, a small area which may be further developed opposite the hospital on Locust Street, a small area at the bend of Riverside Drive in Bay Street and similar ones in Leeds and West Farms.

Industrial Development

Northampton's early industries were all located on rather small sites and occupied

buildings of several stories. Today's requirements are very different and obsolescence of old plants gives them a precarious future. The present plants all occupy relatively small areas; with the exception of the pulp mill at the Oxbow and the Kollmorgen plant on King Street. The whole acreage occupied by industry today is less than four percent of the built up area within the City. The Master Plan proposes land for industrial use which is equivalent to about twelve percent of all of the land which would be developed under the plan in the future.

The interstate highway will enhance the industrial potential of land near or easily reached from it. Unfortunately most of the land through which it passes in Northampton is flood prone. Considering all the flat land near I-91 in the towns immediately to the north, it is doubtful if any extensive portions of Northampton's flood plain could be filled to the safe level except at too high a cost to meet the competition of these other areas.

There is, however, one area of present flood plain which has enough high points to make its use possible. The interstate route, from its crossing of Mt. Tom Road, runs north parallel to and just outside the dike and then curves across the flood plain to its intersection with Bridge Street near the Connecticut River. It encloses an area of more than 200 acres between its line and the high land along Bridge Street, including the Fair Grounds. While I-91 will be on an embankment, it cannot serve as a dike and will not protect the land inside it from flooding. However, this area contains numerous spots which are high enough to permit a safe building level without too much filling. Buildings would have to be located on these high points and the lower elevations used for parking or landscaping. Because of the prime location, an engineering study should be made of this area to determine the cost of making it usable.

The other area along I-91 for industrial development lies in the triangle between it and the two B. & M. rail lines, served by Damon Road and Bates Street. Improved access is discussed in the chapter on Circulation. This is actually Northampton's area of prime industrial potential.

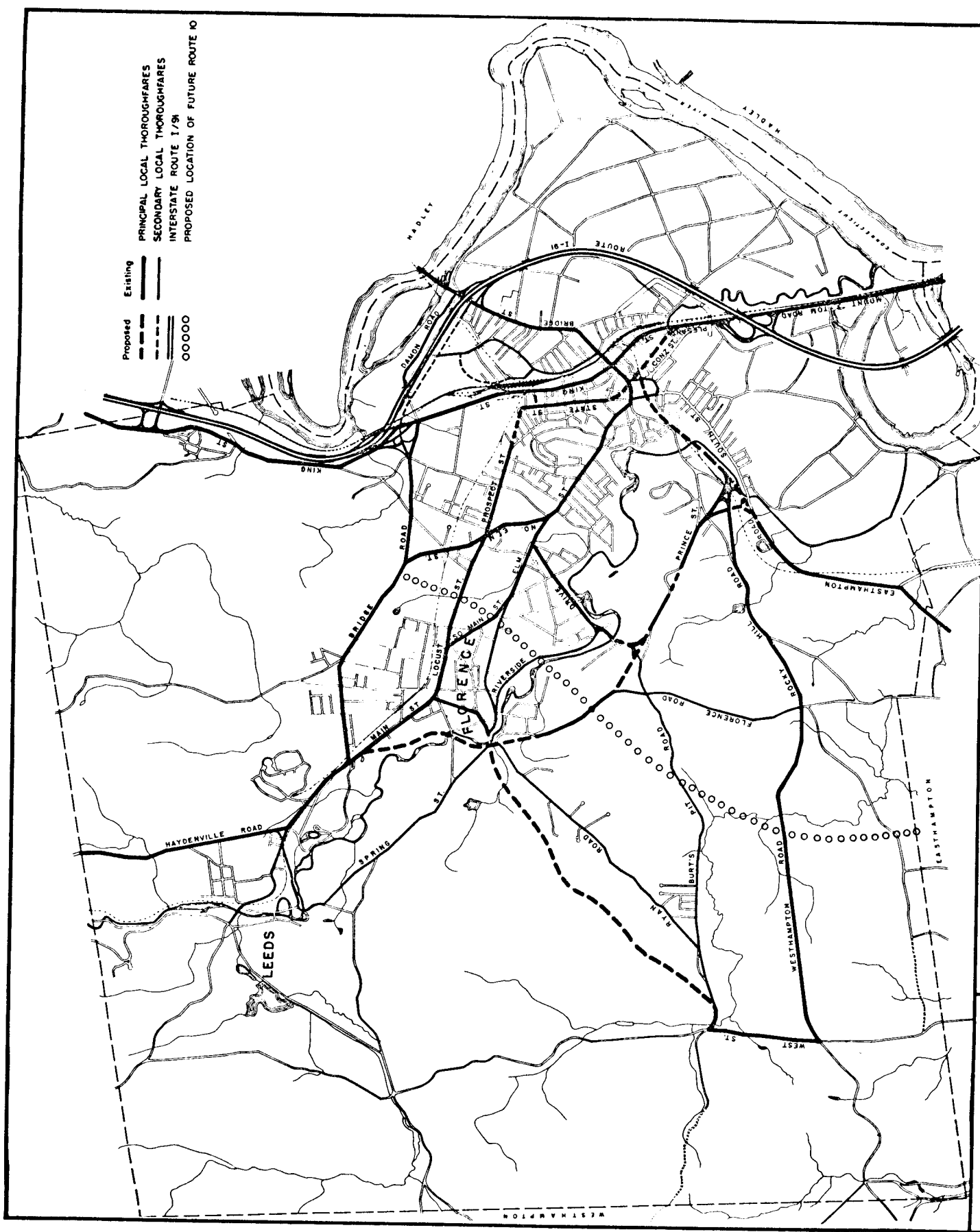
The City owns land along the Williamsburg branch railroad, in from King Street, which should be considered for industrial use. Certain drainage work and provision for access may be required and these should be studied by the City with a view to placing this area on the market for restricted use as an industrial park.

Another area for potential development along the same rail line lies between Bridge and Locust Streets and just west of St. Mary Cemetery. It might include some of the Public Works Department property on Locust Street. This area should also be restricted as an industrial park. A similar industrial park is suggested between Haydenville Road and the Mill River, north of the residential area on Evergreen Road.

Some expansion of the Florence industrial area is proposed, particularly in

the triangle between Meadow and Spring Streets and the Mill River. The area between Spring Street and the river for a distance north of Meadow Street would also be usable where it is high enough to escape flood danger.

Another substantial area is proposed for industrial development along East-hampton Road at the southerly end of the City. Land on the west side of the road is more rugged and suitable for office or research buildings on large properties. These would act as a buffer to residential development further west.



CHAPTER VII

NORTHAMPTON'S CIRCULATION

Northampton as a Traffic Center

Previous chapters of the Master Plan have discussed chiefly the questions dealing with the ways in which Northampton's land should be used in the future. But it is equally important to make plans for the traffic facilities which will be required for moving from one place to another. Without good circulation the community's body cannot flourish. Its growth and economic well being will be stifled if traffic cannot move freely into and around the City.

Automobile traffic is growing faster than population and is likely to continue to do so. We have seen that Northampton is the central city for a sizable region around it. If it remains that way, its business volume will grow as the region grows and this will be reflected in more and more people coming in by motor vehicle. Northampton hopes to increase the amount of industrial activity within its borders, which in turn will lead to increased flow of vehicles carrying materials and personnel.

Some of the traffic in Northampton consists of vehicles which have no reason to stop in the City. Route 5 is the major thoroughfare up and down the valley and has the largest proportion of the through traffic. It will be supplemented and largely replaced for long distance trips by the new interstate route. However, through traffic is by no means the bulk of the present flow on Pleasant and King Streets. The opening of I 91 will remove only a minor part of the traffic on these streets. The normal rate of increase of automobile traffic will soon catch up with any decrease in volume at the Main Street crossing of Pleasant and King Streets occurring when the interstate route opens.

Very little long distance through traffic crosses Northampton in an east-west direction, although Route 9 is a cross-state artery. While available traffic counts show that Route 9 carried a daily average of 9080 cars in 1960 out by the Veterans' Hospital, it had only an average of 5040 a day at the Williamsburg line. By the time the route gets to the Windsor line the average daily traffic was only 1610 vehicles. Similarly, going east, Route 9 carried a daily average of 11,490 cars in 1960 at the Connecticut River. This was reduced to an average of 4970 a day at the Amherst-Hadley line and to only 1770 on reaching Ware.

Towards the north on Route 5 the 1960 traffic averaged 11,850 cars a day at the Northampton-Hatfield line, but only 7770 in Deerfield. Traffic builds up greatly as it approaches Northampton.

The pattern of traffic volumes in the vicinity of Northampton shows clearly that the bulk of the movement is by vehicles coming into or going from the City or by those going from one place to another within it. Traffic is essentially a local problem and will be even more so when the interstate highway is completed. Increases in local traffic will come especially from the growth of residential neighborhoods, from new industrial developments and from growth of the retail business center.

The Proposed Central Artery

The interstate highway will have three interchanges in Northampton, on Mt. Tom Road below the dike, on Bridge Street near the Connecticut River, and on North King Street above the Damon Road corner. In a previous chapter dealing with the central business district we saw that the Mt. Tom exit will be one of the most important entrances into the City. A principal feature of the Circulation Plan was mentioned in that chapter, making use of the former bed of the Mill River to reach Main Street and to locate an artery extending southward from the center. An open plaza is created from the space where South Street and Conz Street come together, extending through to Main Street between South Street and Crafts Avenue. Here traffic can be sorted out as it comes from all directions. This is the focal point of the future downtown area.

From this point a new artery is proposed which extends southerly along the New Haven tracks to a point where Earle Street and Texas Road join. Here there is a connection to Easthampton Road, Route 10, which carries a high volume of traffic, about 6000 vehicles on an average day, into and out of the City. This will reduce the traffic on South Street from its southerly end to the New South Street junction. In this area South Street is almost exclusively a residential street and the center of a very desirable residential neighborhood, but one which may easily deteriorate if the South Street traffic becomes much heavier.

Southerly Circumferential Route

In addition to the Easthampton Road connection just mentioned, the new artery will connect with Rocky Hill and Westhampton Roads to give good access to the southwest corner of the City. It will also connect with an important circumferential route, following in part Prince Street and the Florence Road and then a new alignment to the inner end of Spring Street. Eventually this circumferential route should be extended to North Main Street just south of Look Park.

Northampton at present has only one principal street leading from the west into the center, namely Elm Street, although State, Prospect, and Locust Streets form a secondary approach from this side. As the City grows, and

particularly the Ryan Road, Spring Street, and Leeds areas, along with suburbs beyond, the traffic on Elm Street will become intolerable. These collectively are the area of greatest potential growth. The proposed circumferential route will not only relieve existing streets and avoid congestion in the center of Florence, but will bring the added traffic into the business center at the point where it can best be fed into parking facilities or otherwise handled.

This circumferential route should have controlled access along its whole length. While it will probably not be necessary to have a true expressway here, and although many of the crossings may be at grade, it should have as few points of access as possible to properties along its way. As development takes place, new streets may be permitted to intersect it, but lots in subdivisions should be entered from minor streets and not from the artery itself. It should have a right of way of from 120 to 150 feet in width, to allow proper channelization of traffic at important points.

From this proposed circumferential route there can also be a branch leading westerly along an improved Burt's Pit Road, providing access to the western section. The previous chapter has already described the proposed development of the Ryan Road neighborhood and the thoroughfare needed to provide access to it as this area is developed. Ryan Road itself is too narrow and has too many houses too close to it to serve as the only approach when this neighborhood is fully developed.

The Damon Road Area

On the northern side of the City there are traffic problems to solve. The interchange of Route 1-91 at Bridge Street is planned by the State to serve the southerly direction only. Drivers will be able to leave the interstate highway coming from the south and enter it going south only. There will undoubtedly be heavy traffic coming from across the Connecticut River to this interchange to or from the south.

The interchange proposed on North King Street above Damon Road serves traffic to and from the north only. Damon Road may serve as a form of connection between the two interchanges, but it has the great disadvantage as an important traffic link of having a very dangerous railroad grade crossing near its intersection with King Street. There has already been substantial commercial and industrial development along and near King Street north of the New Haven Railroad overpass. There is a potential for much more, especially industrial, including development in the Damon Road area itself. This will generate a considerable volume of traffic, much of it via Route 1-91, to or from the south. Under presently planned facilities, this southbound traffic could only reach the interstate either by Damon Road or by passing through the center of the City and through the congestion of Pleasant Street to the Mt. Tom Road interchange.

Damon Road is bound to carry a much heavier traffic load when the interstate route is opened. Therefore the Circulation Plan includes another local road parallel to Damon Road on the west side of I-91. Thus Damon Road can be a one way frontage road northbound and the other southbound. Damon Road is scheduled to go under I-91 close to the railroad crossing, bringing these two frontage roads together.

Elimination of the Damon Road Railroad Crossing

While it may be impossible to do away with the grade crossing at this time, no plan would be complete which did not provide for its ultimate elimination. This is an important freight rail link and its abandonment cannot be foreseen. There is not room enough to carry Damon Road over the tracks and then down to the grade of King Street. The Circulation Plan therefore, shows a bridge over both railroad and King Street, somewhat north of the present crossing in order to gain distance. This line will join Bridge Road at its intersection with Cooke Avenue, following in part a small road now known as Pine Brook Curve. Ramp connections for the various turning movements must be provided.

Bridge Road

Bridge Road and the proposed Damon Road improvement will form a northerly circumferential route comparable to the one proposed on the south side. It forms part of Route 9, leading via Haydenville Road to Williamsburg and the Berkshires. Traffic figures previously quoted indicate that Route 9 has a minor use as a long distance artery and that a large share of the traffic on it as it enters Northampton is destined for the City. It seems unlikely, therefore, that the state will replace the Bridge Road and Haydenville Road sections with a relocated expressway in the near future. If such a relocation is ever proposed, it will be to Northampton's interest to have it located as close to the City and as well connected to the central business area as possible.

Future Route 10

A long range proposal is shown on the Circulation Plan regarding Route 10. In another 10 years or so, as development takes place in the area between Northampton and Westfield and further south, there will be a need for an expressway to replace the present route. The Circulation Plan shows a suggested line in Northampton which would follow the only uncongested area between the center of the City and Florence. This line would help to connect various parts of the City and is suggested here so that when such a project is actually advanced Northampton will be ready with its own proposal.

Other Proposals

The Circulation Plan also shows a new principal thoroughfare parallel to and north of Ryan Road, which can be built as subdivision of that area takes place. Ryan Road itself is too narrow and has many houses close to it. With the complete development of this neighborhood, Ryan Road will be insufficient to handle the traffic properly. Also the resulting heavy traffic would tend to depreciate the good residential qualities of houses along it.

Another proposal for the future is the improvement of the arterial route consisting of State, Prospect, and Locust Streets. At a later date urban renewal may well extend to the area between State Street and King Street north of Main Street. When that occurs, State Street may be widened and a new connection provided between State and Prospect Streets. Alternatively, should the New Haven Railroad branch line, which now runs only as far as the Veterans' Hospital, be abandoned, its right-of-way should be acquired for a principal traffic thoroughfare from King and State Streets northwesterly to the present North Main Street - Bridge Road corner.

Parking in Central Business District

A parking survey was made for the City in February 1953 by Ramp Building Corporation, of New York. The report covering this survey and the program proposed as a result of it has been reviewed in the light of the present Master Plan.

Since the date of the parking survey, the population of the City has grown slightly. There was a 3.4 percent increase from 1950 to 1960. The number of all types of motor vehicles registered in the City, however, increased from 9,356 in 1950 to 13,417 in 1962, according to the assessors' records. This represents a jump of 44 percent.

In the central business district there are now approximately 420 curb metered parking spaces, contrasted with 322 at the time of the 1953 survey. The present metered spaces are shown on the accompanying map. However, this represents approximately an equal reduction in non-metered curb spaces of which there are now approximately 150 on the fringes of the central district.

In the 1953 there were two city owned lots, one on each side of Old South Street just south of the New Haven tracks. These are still in use, and together accommodate approximately 150 vehicles. The spaces are unmetered and are apparently used considerably by long time parkers. These two areas are rather far from the retail center to attract customers.

On Hampton Avenue there was a lot available to the public in 1953, which is now private parking for the Northampton Commercial College. It has approximately 80 spaces.

The 1953 report recommended a program to establish four off-street public metered parking lots, three of which have been completed. Those in operation are:

Armory Street	131 meters
Strong Avenue	72
Masonic Street	49
	<u>252 meters</u>

Small lot at Crafts Avenue and Old South Street	<u>7</u>
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Total off-street meters	259
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The 1953 report listed a total of 737 off-street parking spaces. The number of off-street

City lots, metered	259
City lots, unmetered (South Street)	<u>150</u>
Total City	409

Private lot open to public for fee (South Street)	150
Customer and employee parking	<u>509</u>
Total off-street	1068

The above does not include a number of private spaces in alleys, back yards and other small areas. There is an increase in off-street spaces in the central business district of about 45 percent.

The opening of the Armory Street lot and of the privately operated lot on South Street have provided a total of 280 spaces convenient to the retail stores. The private lot makes the same hourly charge as the metered city facility, 5 cents per hour, but requires a minimum of 25 cents. This encourages persons who are intending to stay longer than the limit of the city meters.

It would help traffic very much if there were a connection between the Armory Street lot and the adjoining private facility, so that cars could go through to either Pleasant or South Streets.

A time limit of 4 hours applies to 25 percent of the meters in the Armory Street lot and 2 hours on the balance. In the Strong Avenue Lot, 48 meters have a 10 hour limit and the balance 2 hours. On Pleasant and Main Streets the meters have a 1 hour limit. Elsewhere both curb and off-street meters have a 2 hour limit.

Parking interferes with moving traffic at one or two other locations in the City. Although none can be considered as critical as in the central district. There is congestion from parking on King Street from Court Street north to the railroad overpass. It may be necessary to restrict or to eliminate parking on one side along this stretch.

Another point of congestion is the Florence business center at the corner of Main and Maple Streets. This is an area which is proposed for urban renewal. In the meantime it may be necessary to restrict or eliminate curb parking at certain points within that area.

Proposed zoning regulations include provisions requiring off-street parking facilities in connection with all types of buildings developed after the adoption of the necessary ordinance. This will apply to residences, businesses, public buildings and all types of use. The requirement does not apply to the central business district, where public action is necessary to provide off-street facilities because of congestion. Elsewhere this provision will help to solve the parking problem at least in connection with new developments.

Requirements for off-street parking space as suggested here should be incorporated in the zoning ordinance without delay.

In the central business district and in other areas proposed for urban renewal, this provides a means for attacking the parking problem. In any clearance and redevelopment project ample space for parking must be provided.

CHAPTER VIII

CARRYING OUT THE PLAN

Public and Private Efforts

So far the chapters on the Master Plan have dealt with the physical aspects of the City's future development, its lands, its streets, its schools and other features. There would be very little point to any planning if there were not some program for carrying it out. Obviously the various parts of the Plan will only become realities over a period of years and planning for the financing of necessary improvements is an important phase of the Master Plan.

The City's appearance changes partly because of public works, such as the new interstate highway, and partly because of private building. The City, or sometimes the state, controls public works through the functioning of government departments. The legislative body decides to go ahead with some particular project, perhaps because of the prodding of citizens. Actual execution is in the hands of a particular agency which may have a great deal of responsibility in deciding just what the results will be.

The Capital Improvement Program

It has been the practice in most communities to postpone public works until they are absolutely necessary or until there is a great public clamor for some special project. This often means that a large sum of money must be provided unexpectedly, with consequent effects on budget and tax rate. The management of a city is a financial operation on the scale of a multi-million dollar corporation.

Any well managed business concern would schedule its program for capital improvements a number of years ahead and this is what many cities are now doing. They set up a financial scheduling of the important expenditures which will be required to secure for the community the improvements which it will need. The purpose is to provide an orderly means of financing these improvements within the capacity of the City to pay for them. Essentially the capital improvement program is a listing of needed improvements. It is usually established for a period of the ensuing five or six years and the various projects are tentatively assigned to a particular year. The entire program should be reviewed and revised every year or two.

The term "capital improvement" includes buildings, street improvements, other construction projects, major items of equipment and non-recurring items of city expenditure which are not normally part of the annual operating budget. If one of these expenditures is so large that it must be financed by borrowing, the cost to the taxpayer is the annual installment on the loan and the annual payment of interest. In other cases, the capital expenditure may be directly financed from the annual city income.

What the Program Covers

Preparation of the capital budget program may be done by the City's fiscal officials or by a special committee. The initial basic financial data have been prepared as part of the present planning program. The Master Plan gives an indication of the capital expenditures which will be needed. New school facilities will require substantial expenditures. Street and sewer construction will also be needed as well as new police and fire headquarters. Eventually the facilities of numerous city departments will require expansion. The City must adopt a far-sighted policy of acquiring needed land for future facilities well ahead of building development. The capital improvement program shows what sums will be needed in future years and estimates the effect on the tax rate.

The Master Plan describes some of the projects which should be included in the capital improvement program. Most important is a definite schedule to acquire sites and land which will be needed for the various elements of the Plan. The need for a school in the Ryan Road area has been mentioned and the immediate selection and acquisition of its site was stressed. Acquisition of land in connection with a conservation program was also emphasized. For these reasons there should be a definite land acquisition program with a specific appropriation each year. One dollar on the real estate tax rate would bring in about \$40,000 a year, which would finance a good land acquisition program if it is repeated every year. Such a tax, earmarked for this specific purpose, should have the support of a majority of the Taxpayers.

Other items which belong in the capital improvement program for the next five or six years are:

- Construction of School, Ryan Road area - about 1966
- Enlargement of High School, about 1968
- Enlargement of Florence Junior High School, about 1968 - 70
- Civic center, police and fire headquarters, 1964 - 66
- Highway improvements
- Sewer extensions
- Urban renewal, the City's share.

Urban Renewal

The great majority of all the buildings in a city are built by private enterprise. Buildings are apt to have a limited useful life, especially commercial and industrial structures. Sometimes it pays to tear down old buildings and replace them with modern ones, but frequently the cost of doing this is prohibitive. In cities like Northampton there are many buildings in older central sections which have become run-down and which are uneconomic. Often they are too close together and occupy too small lots to furnish sites which meet today's requirements. It may be difficult, or even impossible, to assemble enough property for a modern building. Thus the tendency has been to put up new business and industrial buildings in outlying places where space is available, while the older areas and their buildings deteriorate. Conditions like this can be found in Northampton within a few steps from Main Street.

It is to meet problems like this that urban renewal has been established. Urban renewal is a federally aided program designed to assist communities to attack blight and obsolescence and to improve or rebuild the old and run-down areas. The federal part of the program is administered by the Housing and Home Finance Agency, commonly referred to as HHFA. Under Massachusetts law, the City establishes a Redevelopment Authority, or gives the job to the Housing Authority if it wishes.

The local Authority may then select a project area and apply to HHFA for assistance. Depending on the nature of the area, it may be cleared entirely and sold for the construction of new buildings, or in other cases some or all of the structures may be retained and rehabilitated. In any event there may be numerous public improvements in the area, as part of the project. Since the local Authority has the power to condemn land, it can assemble adequate sites for redevelopment. However, the local governing body must approve the urban renewal plan at all stages.

The major expenses are those of planning and executing the project, including the cost of acquiring property, demolishing old buildings, making necessary street or other improvements and preparing the land for sale. These are included in the gross cost. Subtracting the total receipts from sale of land from the gross cost gives the net cost of the project. Under the present program the federal government pays three-fourths of the net cost, in cities of less than 50,000 population. The state at present may pay up to one half of the local one-fourth, so that the actual cost to the City is only about one-eighth of the total net cost. The community may receive credit for some local improvements which benefit the project. Since the tax revenue from the redeveloped property should exceed considerably the former level, the program is most attractive financially to the community.

The Master Plan indicates several areas for urban renewal. The area recommended for a first project lies south of Main Street in the central business district and was described in Chapter II. Another area which deserves early study is that surrounding the Florence business center.

The Workable Program

In addition to the requirements of the urban renewal program in itself, the federal law establishes certain requirements as a condition for receiving the financial assistance. These requirements are referred to as the "Workable Program" to help prevent further blight. The City must have a comprehensive master plan. It must have a standard building code and other ordinances controlling the conditions of buildings and especially of housing. These codes and ordinances must be properly enforced. The City must also present evidence of its ability to meet its share of the cost of the urban renewal project, presumably through its capital improvement program. It must also show its plans for rehousing any persons who may be displaced by the renewal project.

Citizens' Advisory Committee

The final requirement is that there must be evidence of public participation in the urban renewal program, through a citizens' advisory committee or similar group. This is a most important factor, both in urban renewal and in carrying out all of the phases of the Master Plan.

The citizen's advisory committee should include representatives of the city government, civic organizations, the various business and other interests such as the Chamber of Commerce, labor groups, and similar organizations, as well as interested individuals. Such a body may be initiated by the Mayor or by the Planning Board, and should be established at this time, in order that its members may contribute to the activities connected with development of the community.

Residential Subdivision and Cluster Development

Much of the residential growth of the city takes place through the activities of builders and developers who subdivide land and sell lots or finished houses. Subdivision is controlled by state law, administered by the Planning Board. Unless the subdivision is entirely located on an existing street, the developer must first secure the Board's approval and must comply with its regulations and standards. The zoning ordinance determines the minimum size of lot.

Previous chapters of the Master Plan dealt with the preservation of open land and the development of neighborhoods. The Master Plan establishes a pattern for subdivision of the areas where active development is taking place. In Chapter III, we saw that Northampton has plenty of land to house its residents, as far in the future as can be foreseen. Chapter IV dealt with the relation of residential development and public services, including sanitary sewers. Chapter V showed how residential development is related to school facilities.

Since there is plenty of land, it would be foolish to crowd the new houses too closely together. On the other hand, the most efficient community and the one most economical to service is reasonably compact and not one which is spread all over the whole City area. "Cluster" development gives these desired results. While the zoning normally requires a certain size lot, "cluster" subdivision permits a specific reduction in required lot area, provided that an equivalent amount of land in the subdivision is set aside as permanent park or other open space. This must all be done according to a plan approved by the Planning Board.

"Cluster" development is especially useful in outlying sections, since it retains some of the desirable rural characteristics of open space, and permits an economical grouping of houses. The Master Plan shows how this can be done in the Ryan Road area as development takes place.

Neighborhood Analysis

a. Division into Neighborhoods

As previously mentioned, Northampton is a community of neighborhoods, many of them separated from others by physical features and open space. The map following shows the division used in the present program. They are designated by number, but in most cases are old recognized neighborhood communities.

For the purposes of analysis, the neighborhood areas cover the entire City, with the exception of land occupied by the State Hospital, Veterans' Hospital, Look Park, and the Northampton Country Club. The Master Plan indicates the areas which in the future will have virtually no population, such as flood plain, reservations, industrial and other non-residential areas. Map 5 shows these areas, together with those which will constitute the future residential neighborhoods.

In the following analysis, the term neighborhood has been used to cover the total area, or "analysis district", with respect to data concerning areas, land types, present population and present conditions. As far as future use and future population are concerned, the portions of these "analysis districts" which will be actually occupied by residential and other development will in some cases be much smaller than the statistical neighborhood listed in the following tables.

Data concerning areas and numbers of population were given in Table 13 on Page - 5-n- and in Chapter V. Supplementary data follows:-

Table 14

<u>Present Land Areas, Densities and Distribution of population</u>				
<u>Neighborhood</u>	<u>Total Area acres</u>	<u>Present Net Residential Area acres</u>	<u>Present No. of Households</u>	<u>Net Density Households per Net Acre</u>
1	2320	320	632	2.0
2	430	205	1703	8.3
3	1950	190	1299	6.8
4	1910	365	1349	3.7
5	1960	120	227	1.9
6	270	160	380	2.4
7	250	150	537	3.6
8	1770	225	697	3.1
9	5400	320	542	1.7
10	<u>4720</u>	<u>275</u>	<u>327</u>	<u>1.2</u>
Totals	20980	2320	7693	3.3

Density in terms of land used has been studied by dividing the total land area in each neighborhood occupied by residences by the approximate number of lots occupied by dwellings. This was described in the original scope of services as "ratio of acreage to the number of lots" and gives a measure of the average area of lot occupied by dwellings. The results are shown in Table 15.

Table 15

Average Area of Lot Occupied by Dwellings

Neighborhood	Present Net * Residential Area	Approximate * No. of Occupied Residential Lots	Average Acres per Lot
	acres		
1	320	610	0.52
2	205	1370	0.15
3	190	970	0.20
4	365	980	0.37
5	120	220	0.55
6	160	310	0.52
7	150	380	0.39
8	225	630	0.36
9	320	510	0.62
10	275	310	0.88
	2330	6290	0.37

* From field inspection, in rural areas, the lot occupied by a dwelling has been considered to be one acre, even though the actual land owned might be considerably more

b. Identification of Causes of Blight

(1) Environmental

Only a few limited portions of Northampton are blighted by reason of environmental causes. Certain areas in the center were formerly subject to flooding but are now protected by flood control measures, especially the dike and the diversion of the Mill River. There are a few dwellings which exist in the remaining flood plain, but these are mostly either farm dwellings in good condition or seasonal camps. They are not numerous enough to threaten to be any extensive community problem.

A major environmental factor affecting housing conditions is the main line of the Boston and Maine Railroad. The worst pockets of substandard housing occur along or near that line. The Master Plan proposes these areas for urban renewal, as described below.

A few limited residential plants, especially in the Florence area along the Mill River and in the Florence business center. Mixture of uses and congestion of land use are the main factors contributing to blight. The Master Plan proposed urban renewal treatment described below, to remedy these situations.

A leading environmental factor contributing to the absence of wide-spread blight is the amount of open space close to residential neighborhoods and the generally low density of residential development. Nearly 80 percent of the owner occupied housing units are in single family detached dwellings. Of rental units, more than 50 percent are in one and two family dwellings. Owner occupied units constitute 54 percent of all of the units in the City and 58 percent of the occupied units. Furthermore the average lot area for the whole City is large.

c. Survey of Existing Housing Conditions

A tabulation of available data from the 1960 Census of Housing by enumeration districts, has been made and has been assembled to cover each neighborhood. Table 16 gives the number of units in each neighborhood & the number which are actually occupied and those occupied by the owners. This shows a high percentage of owner occupancy in Neighborhoods 6,8,9 and 10.

Neighborhood 6 is an old established area commonly known as "Bay State", with a middle income population. The other three neighborhoods are partly rural and contain numerous new homes.

The highest percentage of renter occupancy occurs in Neighborhood 4, followed by Neighborhoods 2 and 3.

Table 16
Housing Occupancy
1960 Census

<u>Neighborhood</u>	<u>Total Housing Units</u>	<u>Occupied Units</u>	<u>Percent Occupied</u>	<u>Owner Occupied Units</u>	<u>Percent of all units Owner Occupied</u>
1	791	632	80%	471	60%
2	1786	1703	95%	810	45%
3	1388	1299	94%	640	46%
4	1459	1349	92%	487	33%
5	244	227	93%	168	69%
6	391	380	97%	298	76%
7	564	537	95%	340	60%
8	725	697	96%	581	80%
9	568	542	96%	446	78%
10	345	327	95%	257	77%
Totals	8261	7693	93%	4498	54%

In addition to the above, the Census lists 320 dwelling units in institutions or other group quarters of which 209 were occupied at the date of the 1960 Census.

Table 17 gives a picture of the physical condition of housing in the neighborhoods. The census classifications of "dilapidated" and "deteriorated" are tabulated, but it is necessary to take a closer look at the actual areas within the neighborhood where these conditions apply.

Neighborhood 1

The Census reports 33 units, as "deteriorating" and 15 as "dilapidated". The latter are mostly confined to a small pocket at the angle where the Boston and Maine main line and the branch from across the Connecticut River join. Most of the deteriorating units occur in the more rural parts of the Neighborhood.

Neighborhood 2

This area has 167 deteriorating units, according to the Census, many of them located in the area between King and State Streets. The area has only 11 units listed as dilapidated.

Table 17

Housing Conditions 1960 Census

<u>Neighborhood</u>	<u>Total Housing Units</u>	<u>Units Deteriorating</u>	<u>Percent of Total</u>	<u>Units Dilapidated</u>	<u>Percent of Total</u>
1	791	33	4.2%	15	0.2%
2	1786	167	9.3%	11	0.6%
3	1388	325	23.5%	59	4.2%
4	1459	172	11.8%	53	3.6%
5	244	11	4.5%	8	3.3%
6	391	15	3.8%	5	1.3%
7	564	79	13.9%	4	0.7%
8	725	26	3.6%	2	-
9	568	63	11.1%	6	1.0%
10	<u>345</u>	<u>155</u>	<u>45.0%</u>	<u>17</u>	<u>4.9%</u>
Totals	8261	849	10.2%	180	2.2%

Neighborhood 3

The Census lists 325 units in this area as deteriorating and 59 as dilapidated. These are mostly concentrated in the area east of the Boston and Maine main line, many of them in a low-lying area inside the dike.

Neighborhood 4

This area has 172 units listed as deteriorating and 53 as dilapidated. Many of the dilapidated units are in the area along Pleasant Street. A few of the deteriorating units are in rural parts of this neighborhood.

Neighborhood 5

This neighborhood has few substandard units. Those which exist are mostly scattered rural dwellings.

Neighborhood 6

This area, known as Bay State, has a high percentage of owner occupied homes and a low percentage of deteriorating or dilapidated houses.

Neighborhood 7

This neighborhood covers the part of Florence south of the New Haven Railroad branch track. In the vicinity of the railroad and Main Street there are numerous deteriorating dwellings and a few dilapidated.

Neighborhood 8

This includes Florence north of the track and extends through the North Farms section to the City's northerly boundary. It contains a small percentage of substandard dwellings, mostly near the railroad.

Neighborhood 9

This neighborhood includes mostly rural area, including the fast growing Ryan Road section. About 12 percent of its dwelling units are classed as substandard. Part of these are in the section near the Mill River and others mostly in the rural sections.

Neighborhood 10

This neighborhood includes the area known as Leeds and the northwest corner of the city. It has the highest percentage of substandard dwellings classified in the 1960 Census as deteriorating or dilapidated. However, a large number of these are rural dwellings scattered over the area. Some of them are situated in and near the old village of Leeds.

d. Preliminary Recommendations for Urban Renewal Action

The accompanying map shows areas where there are the chief concentrations of blight. Map 18 indicates areas which are initially suggested for consideration for urban renewal action. Five areas are recommended for further study as projects, as follows:

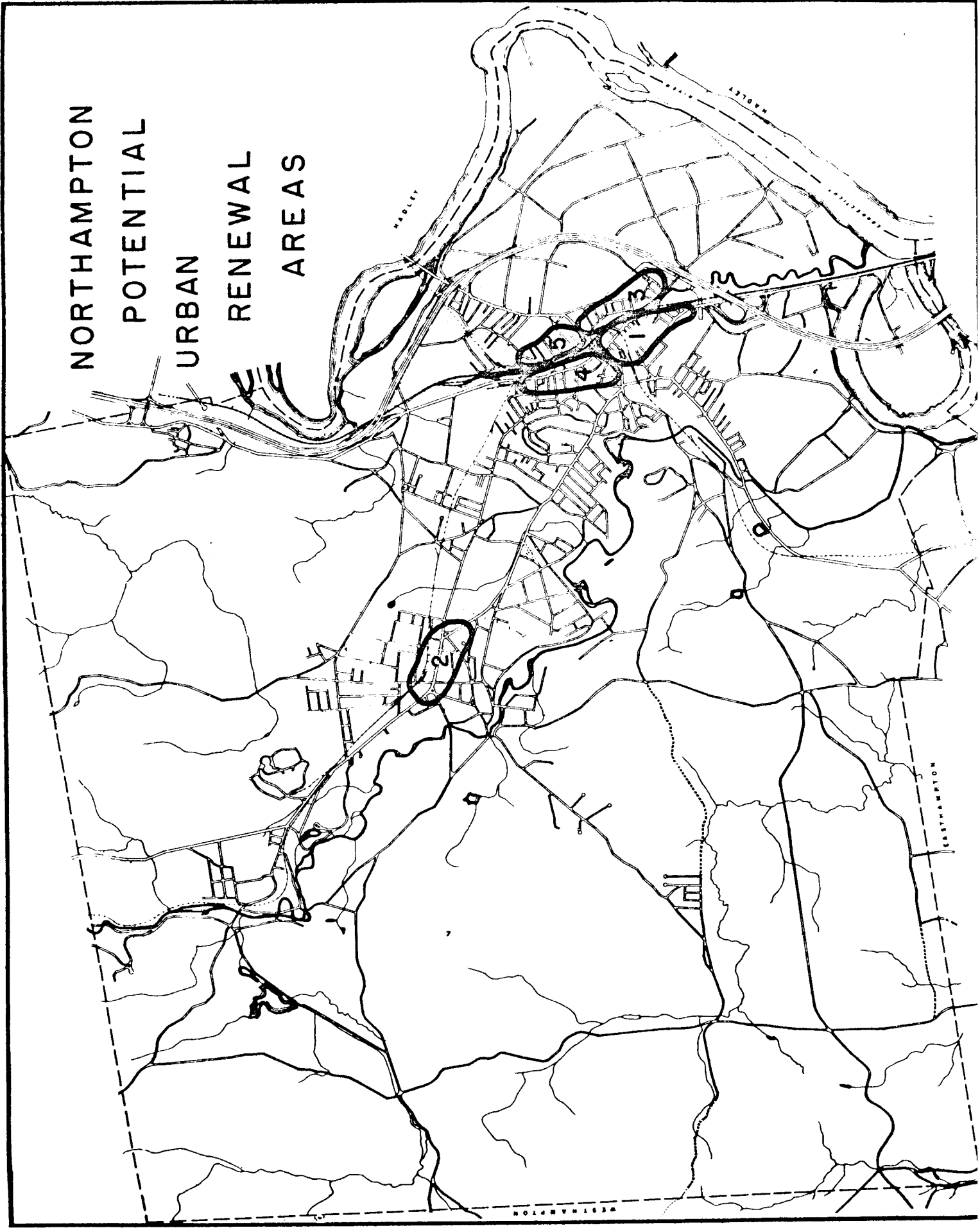
- (1) Area in the central business district between Pleasant and Conz Streets south of Main Street, including also the area between Pleasant Street and the Boston and Maine tracks. This area is part of Neighborhood 4. It contains environmental defects which discourage any improvement in its present residences, especially proximity to railroad and heavy traffic artery and extreme mixture of uses. Although this area does not have the highest overall percentage of substandard housing, as compared with some others, it contains a number of pockets of badly substandard housing. A considerable part of this area will need complete clearance. Its redevelopment is essential to carrying out the plan for revitalizing the central business district and would contribute more than any other project to the economic revival of the City. Therefore this area is given number one priority.
- (2) The Florence business center and surrounding area. This area shows indications of deterioration. Its retail business suffers from traffic congestion and lack of parking. There are many old and obsolete commercial and industrial buildings and a moderately high percentage of substandard housing. Environmentally the area suffers especially from an obsolete street pattern and very mixed uses. Its renewal would permit an improved traffic pattern and would contribute greatly to the City's economic progress.
- (3) The area east of the Boston and Maine main line tracks south of Bridge Street and west of Pomeroy Terrace Street and the dike. Part of this area contains the highest percentage of substandard housing of any similar section of the City. Nearly 50 percent of its dwelling units are classified as deteriorating by the 1960 Census and more than 11 percent as dilapidated. It contains several severe environmental defects, including nearness to the railroad and low elevation of part of the area behind the dike. While some of the structures could be rehabilitated, much of the area should be cleared. The part near the tracks would be retained in industrial use and the balance is indicated on the Master Plan for housing.
- (4) The area between State Street and the main line railroad, north of Main Street. This area contains many obsolete business buildings and in some parts it has a high percentage of substandard housing. The Master Plan shows the area as part of the central business district. Some parts of this area would be cleared and other portions would be subject to rehabilitation. Improvement of the traffic pattern and increased parking facilities would make this project an important one for the City's economic future.
- (5) The area immediately east of project (4), across the main line tracks. This area has a high percentage of substandard housing. The portion along the tracks is suitable for industrial use and the balance for housing.

Map 14 also shows five areas for future consideration, primarily for conservation activities. In some of the areas there are pockets of substandard housing which may require clearance. There is also an opportunity for spot clearance and for rehabilitation of dwellings. The greater part of the areas designated contain reasonably sound dwellings, but should be carefully studied for signs of deterioration.

e. Priority for Urban Renewal Action

The above projects are listed in a tentative order of priority. The first one is important to the City and should be initiated without delay. The five projects suggested here would probably occupy a ten year period for execution. The areas proposed for conservation action could be carried out at any time possible.

NORTHAMPTON
POTENTIAL
URBAN
RENEWAL
AREAS



Capital Improvement Programs

In connection with the Capital Improvement Program described on Page 37, several tables are included here which show the trends of municipal finance. Table 18 gives basic data on the trends of tax revenue and other income since 1957, together with projections to 1968.

The projections for school operating expenditures for the next five years are based on the estimates of total school enrollment (Line 2) and on the cost of operation per pupil (Line 4). It will be noted that the level of cost per pupil has been rising at a fairly steady rate from \$299 in 1957 to \$371 in 1961. Higher salary scales and other increased costs are likely to cause a continuation of this trend. Therefore the projections for future years are based on an average increase in per pupil cost of \$14 every year, equal to the average increase over the past five years.

The totals of other city operating expenditures (Line 3) are projected on the basis of the cost per capita, which has increased from \$67 in 1957 to \$81 in 1962. This may be expected to increase by about \$2 or \$3 a year, because of the general rise in all costs. The population (Line 1) is projected on the basis of the estimates previously described.

The costs of interest and amortization on present debt are listed on Lines 9 and 10. Table 19 shows the amount of the bonded debt and amortization payments each year until the present debt is paid off in 1987.

Expenditures of a capital nature which are paid for out of annual income are listed on Lines 6, 7 and 8. These expenditures have averaged around \$160,000 a year in recent years. Expenditures of this nature for future years are listed in Table 20 instead of being projected in Table 18.

Line 15 of Table 16 shows the amounts of local taxes collected in the years from 1957 to 1962 and Line 18 shows the totals of indirect revenues such as state grants, state shared taxes and miscellaneous income. The totals of these two lines give the total normal income of the City for each of the past years (Line 17).

For the years 1963 to 1968, the amounts estimated for indirect revenues and miscellaneous income are projected to reflect the average increase experienced in recent years, on a per capita basis (These are shown on Line 16). For the same future years, the amount of local taxes required to meet the total estimated expenditures as shown on Line 12, after deducting estimated indirect revenues is given in Line 18.

The total assessed value of real and personal property is listed in Line 20 and its equivalent on a per capita basis is given on Line 21. Using the trends of the latter figure, the assessed valuations have been projected through 1968. The last line gives the equivalent tax rate required to raise the local tax revenue needed to meet projected expenditures, assuming a trend in assessed values as given in Line 20. This is the estimated tax rate required to meet normal operating expenditures and the debt service on the existing debt, before making any provision for future capital expenditures.

Table 19 shows the status of the present bonded debt, with the amounts which will be required for amortization in each year until the indebtedness is finally paid off in 1987.

Table 19
Amortization Payments on Existing Debt

<u>Date</u>	<u>Amortization Payments during year</u>	<u>Outstanding Debt at end of year</u>
1963	\$ 260,000	\$ 2,862,000
1964	235,000	2,627,000
1965	235,000	2,392,000
1966	210,000	2,182,000
1967	205,000	1,977,000
1968	200,000	1,777,000
1969	190,000	1,587,000
1970	162,000	1,425,000
1971	155,000	1,270,000
1972	135,000	1,135,000
1973	115,000	1,020,000
1974	110,000	910,000
1975	110,000	800,000
1976	105,000	695,000
1977	105,000	590,000
1978	95,000	495,000
1979	95,000	400,000
1980	95,000	305,000
1981	95,000	210,000
1982	35,000	175,000
1983	35,000	140,000
1984	35,000	105,000
1985	35,000	70,000
1986	35,000	35,000
1987	35,000	0

Tables 20 and 21 show the effects of proposed projects and future capital expenditures on the tax rate for the years to 1968. The projects listed are typical of those needed to carry out the proper development of the City in accordance with the Master Plan. They are tentatively shown here to illustrate the operation of the Capital Improvement Program. If different projects and different cost estimates are inserted in the tables, the resulting effect on the tax rate can be easily calculated.

The City has been spending an average of about \$160,000 a year on capital expenditures paid for from annual income. Obviously the more the City spends from income for these items, rather than from bond issues, the more it can save in interest.

The importance of acquiring land for future projects well in advance of development has been mentioned before. School sites, recreation and conservation land and other needs were stressed. The importance of prompt action in some of these cases is apparent. The City should have a continuing program for land acquisition. If Northampton were to spend an average of \$40,000 a year, or less than one dollar on the tax rate for this purpose, it would prove a very wise investment, and would insure substantial savings at a later date, when land costs might be much higher and when the needed site might be already improved with building construction.

A tentative program of capital expenditures from annual income follows:

Table 20

Program of Capital Expenditures from Income

	Average Annual Expenditure
Land Acquisition program	\$ 40,000
Highway improvements (in excess of Chapter 90 refunds)	60,000
Public Works and similar equipment	15,000
Schools, miscellaneous improvements	25,000
Sewer extensions and replacements, in excess of assessments	25,000
Park and playground improvements	20,000
General Government, police, fire and miscellaneous equipment	25,000
	<u>210,000</u>

Major capital expenditures, such as school buildings and other large scale projects, are normally met from the proceeds of bond issues. The most recent borrowing of this nature was the issue for the Florence Junior High School in 1961.

The next school building project proposed is an elementary building in the Ryan Road area. Acquisition of the site at once has been recommended and financing of its purchase can be included in the land acquisition program just described. A first section of the building will be needed by about 1966, and would presumably include 12 classrooms and other facilities. The construction and equipment may be expected to cost about \$450,000. If bonds in this amount are issued in 1966, the first repayment would take place in 1967. It may be expected that as much as half of the annual

amortization payments will be covered by receipts from the state school building assistance program.

The Master Plan has recommended that consideration be given to expansion of the civic center by ultimate acquisition of the property behind the City Hall, now belonging to one of the utility companies. The office building on that property is now used by both the electric company and the gas company. It is understood that the electric company may move shortly to another location.

We therefore recommend that the City negotiate with the gas company with a view to occupancy of space for office use under a lease temporarily and for eventual acquisition of the property, in a period of five or six years. Thus the cost of providing for needed facilities could be spread over a reasonable period of time. Because of the alternatives, and uncertain timing no provision is made for this project in the proposed bond issues in Table 21.

The other project for which financing is indicated in Table 21 is urban renewal. Until a project is specifically delineated and planned, it is impossible to establish a definite cost. However, tentative studies have indicated that a worthwhile project might be carried out with a net cost of 3 to 3½ million dollars. Three quarters of this cost is paid by the federal government under the urban renewal program. The local share would therefore amount to from \$750,000 to \$850,000. The present state contribution amounts to half of this sum, paid over a period of 20 years. In effect, the state payment would be equivalent to one half of the annual authorization on a bond issue equal to the local share.

Table 21 is set up for the period from 1964 to 1968. Each year the capital improvement program should be reviewed and extended for an additional year. New projects will be added from time to time and the schedule revised in the light of future circumstance. Table 21 shows the estimated costs in terms of the tax rate for each year. This is a projected figure, based largely on the estimates contained in Table 18. An increase of \$1 million dollars of total assessed valuation over the figure estimated in Table 18 for any year would result in a reduction of the corresponding tax rate by close to \$.00. The figures for future years contained in these tables are not "prophecies". They are projections based on assumed estimates and are intended primarily to facilitate financial planning for the future. It seems doubtful that the costs of operating schools and all the other city departments can be reduced very much below the amounts estimated here, without sacrificing needed services. It is obvious therefore that the community must work to secure investments in real estate improvements which will increase the total of assessed valuations. To do this may require investment by the City to make the community more attractive to the productive elements of its economic base.

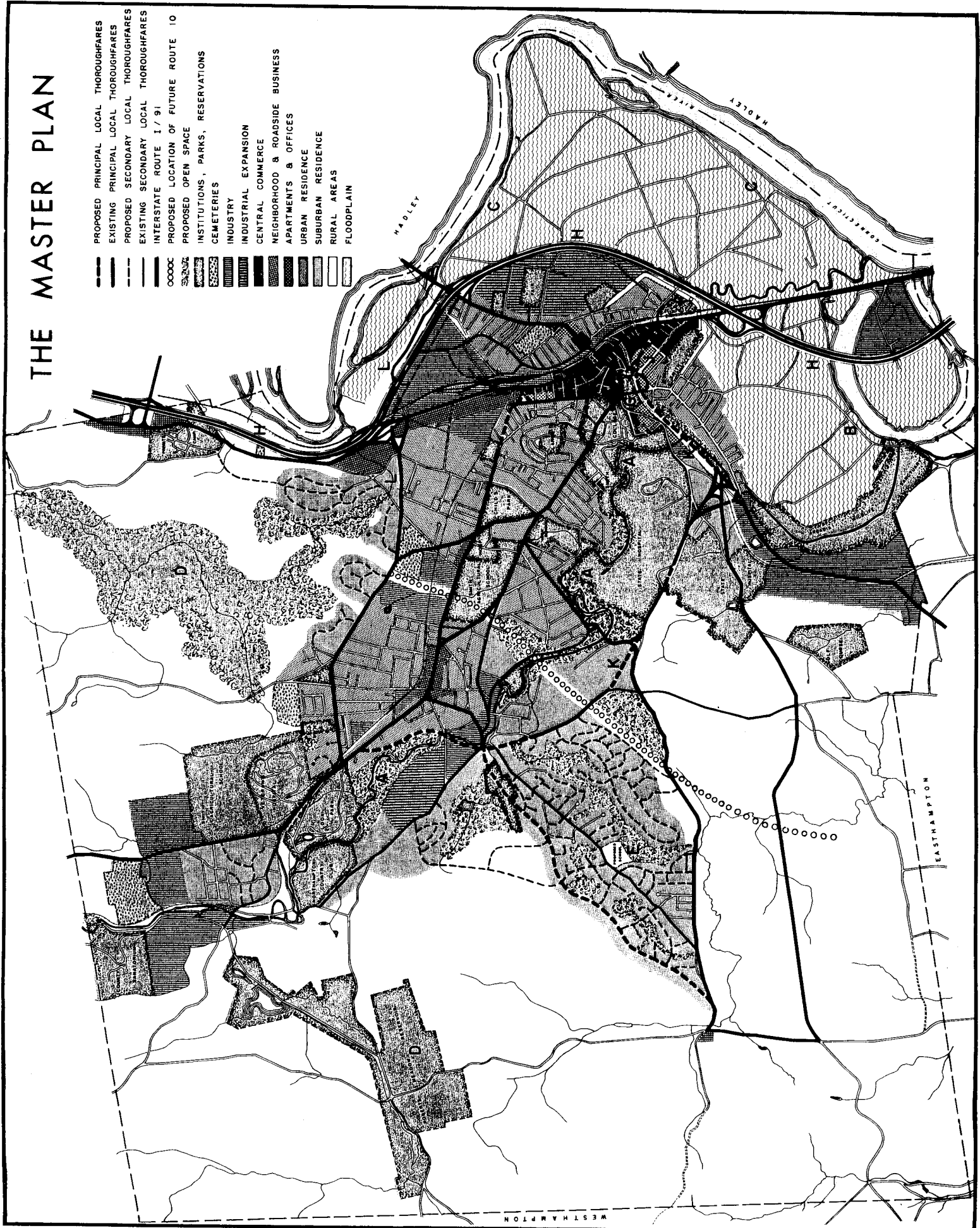
Table 21

Summary of Capital Improvement Program

	1964	1965	1966	1967	1968
Projects paid for from income (from Table 18)	210,000	210,000	210,000	210,000	210,000
(1) Ryan Road Elementary School estimated cost \$450,000 20 year bonds at 3 3/4% issued 1966 Amortization, less state contribution Interest				11,250 16,875	11,250 16,000
(2) Urban Renewal estimated cost \$800,000 20 year bonds at 3 3/4% issued 1965 Amortization, less state contribution Interest			20,000 30,000	20,000 28,500	20,000 27,000
	<u>210,000</u>	<u>210,000</u>	<u>260,000</u>	<u>286,625</u>	<u>284,250</u>
Equivalent Tax Rate Based on Estimated Assessed Value from Table 16	\$ 4.80	4.72	5.73	6.21	6.05
Basic Tax Rate for operating from Table 16	<u>78.62</u>	<u>79.68</u>	<u>81.02</u>	<u>82.59</u>	<u>84.22</u>
Total projected Tax Rate	83.42	84.30	86.75	88.80	90.27

THE MASTER PLAN

- PROPOSED PRINCIPAL LOCAL THOROUGHFARES
- EXISTING PRINCIPAL LOCAL THOROUGHFARES
- PROPOSED SECONDARY LOCAL THOROUGHFARES
- EXISTING SECONDARY LOCAL THOROUGHFARES
- INTERSTATE ROUTE 1 / 91
- PROPOSED LOCATION OF FUTURE ROUTE 10
- PROPOSED OPEN SPACE
- INSTITUTIONS, PARKS, RESERVATIONS
- CEMETERIES
- INDUSTRY
- INDUSTRIAL EXPANSION
- CENTRAL COMMERCE
- NEIGHBORHOOD & ROADSIDE BUSINESS
- APARTMENTS & OFFICES
- URBAN RESIDENCE
- SUBURBAN RESIDENCE
- RURAL AREAS
- FLOODPLAIN



EXISTING LAND USE

- | | |
|----------------------------------|------------------------------------|
| COMMERCIAL | JHS JR. HIGH SCHOOL |
| MANUFACTURING | HS HIGH SCHOOL |
| RESIDENTIAL | CS CLARK SCHOOL |
| CIVIC | SC SMITH COLLEGE |
| CEMETARY | 1 THE BURNHAM SCHOOL FOR GIRLS |
| CHURCH | 2 THE NORTHAMPTON SCHOOL FOR GIRLS |
| SYNAGOGUE | |
| ELEMENTARY SCHOOL | |
| A ST. MICHAEL'S PAROCHIAL SCHOOL | GC GOLF COURSE |
| | CC COUNTRY CLUB |
| | P PARK |
| | PW PUBLIC WORKS |

